DOCUMENT RESUME

ED 166 114 SO 011 499

TITLE A Visual Arts Guide for Idaho Schools, Grades K-6.
INSTITUTION Idaho State Dept. of Education, Boise.
PUB DATE Jun 78
NOTE 251p.; For a related document, see SO 011 500

EDRS PRICE MF-$0.83 HC-$14.05 Plus Postage.
DESCRIPTORS Art Activities; Art Appreciation; *Art Education; Art Materials; Average Students; *Childrens Art; Curriculum Guides; Educational Objectives; Elementary Education; Freehand Drawing; Handicapped Students; Handicrafts; Lesson Plans; Painting; Photography; Resource Guides; Sculpture; *Skill Development; Teacher Role; Teaching Methods; *Visual Arts

ABSTRACT

Over 80 art activities for elementary school students are presented in this curriculum guide. Introductory sections define the roles of school superintendents, principals, art supervisors, and art teachers in supporting art programs; outline goals of an art curriculum; review developmental stages of children's art skills from age two through 13; and provide hints on handling media such as papier mache, clay, and tempura paints. The bulk of the guide consists of specific art lessons for each grade level from kindergarten through sixth grade. Each lesson explains materials, procedures, key vocabulary (i.e., texture, pattern), and design elements and principles. Lessons include clay pinch-pots, finger painting, paper weaving, tie-dye with crepe paper, monoprint, sand casting, still-life drawing, watercolor and India ink, multimedia tissue paper collage, printmaking with paraffin, burlap weaving, crayon batik, bas-relief in plaster and clay, box sculpture, glue-line relief prints, linoleum-block printing, and clay sculpture and jewelry. A section on photography offers activities for grades one through six and gives recipes, formulas, and instructions for making cameras and darkroom equipment. Concluding sections discuss art activities for handicapped students and list basic art equipment, facility requirements, and audiovisual and print resources. (AV)

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A VISUAL ARTS GUIDE
FOR IDAHO SCHOOLS
GRADES K-6

IDAHO STATE DEPARTMENT OF EDUCATION
Division of Instructional Improvement

Prepared by

Statewide Visual Arts Curriculum Committee

June 1978

SP-011499

A. D. LUKE
Associate State Superintendent
Division of Instruction

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of Public Instruction

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FOREWORD

It is a pleasure to endorse the publication of new guides in drama, dance and visual arts for Idaho schools. Developed by statewide committees of art educators, the guides should result in improved and expanded programs for Idaho children.

The arts provide many benefits. They spark classroom interest, improve morale and attendance, expand imagination and creativity, foster love of learning and increase the love and understanding of people in other cultures.

For these reasons, a quality fine arts program should be an important part of the curriculum of every Idaho school.

Sincere appreciation is expressed to the members of the committees for their assistance in writing the instructional materials.

Roy Truby

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State Superintendent
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PURPOSE

WE BELIEVE:

All individuals are creative.

Art experiences in the schools are not provided primarily to train artists, but to develop students through art experiences.

Art is valid to students because it gives them an opportunity to:

express visual ideas

promote mental growth and emotional development and release

develop aesthetic sensitivity and understanding of past and present art

expand the ability to perceive, interpret perceptions, and utilize aesthetic judgements

cultivate attitudes and desires to protect and improve the visual environment

create avenues for leisure time activities

enrich every area of living.

FINE ARTS INSTRUCTION REQUIRED

Fine Arts instruction is required for all Idaho elementary schools as stated in the State Department of Education publication, Standards and Recommendations for Elementary Schools, 1977, pp. 12-13.

Guides in Music, Drama, and Dance are also available from the department.

THE ROLE OF THE ADMINISTRATION

The Superintendent: As the leader of the school and the liason between school and community, the superintendent should provide and support an adequate visual art program as an integral part of general education in the school district.

He or she should work closely with the art supervisor, art teacher-specialists, and school principals in developing a flexible art program which meets the needs of the students.

He or she should select art teachers with proper certification and training, and provide adequate facilities and equipment.

He or she should provide time for art personnel to attend professional conferences and to participate in programs of inservice training.

The Principal: As the individual school leader, the principal should work closely with the art specialist to develop and improve art in the total program of his or her school.

He or she should encourage development of greater competencies in art through staff inservice training as well as establishing a non-threatening atmosphere conducive to freedom of expression of creative abilities.

He or she should be actively involved in the art activities in the school seeing that art has its rightful place in the total school program, and maintaining a schedule that allows time for art activities such as exhibits, field trips, and correlated learning experiences with other disciplines.

The Art Supervisor: As a cooperating resource person he or she should plan an art curriculum which is compatible with the total school program as expressed in the district's philosophy and goals.

He or she should be a professional person who develops support for the program through tact and respect in dealing with the members of the school community. Rapport with both students and educators is not only desirable, but a necessity. He or she should continuously analyze new methods and media, perform research into current trends in visual arts education, and transmit findings to both teachers and administrators by means of inservice workshops, bulletins, and direct verbal communication.

THE VISUAL ART TEACHER
OR ART DEPARTMENT HEAD

Since much of the success of the art program depends upon the art teacher, it is vitally important that he or she understands and has a sincere concern for youth. The preparation, personality, philosophy, general aptitude, and attitude of the teacher comprise the most significant elements of the teaching-learning situation. The effective art teacher thinks of the classroom as a learning laboratory in which to focus on the education of youth through creative art activities. The teacher must learn that merely engaging in the manipulative activities of crafts, painting, or sculpture does not necessarily lead to an understanding of art. The teacher should not mistake "busy work" for learning about art.

Technical ability and know-how are not sufficient unto themselves to help the students develop works of art. At best, the art teacher may be able to pass on to the students creative insights and principles which will help them develop their own ideas. The teacher must be an inspiring advisor who makes an effort to stay out of the students' experience and yet gives advice when it is needed. At the same time, it is important that the teacher refrain from stifling the students by emphasizing his or her own likes and dislikes and styles of work. The art teacher must help to unlock the hidden possibilities and talents within the students. The art teacher must be responsible for establishing the direction and development of the curriculum, and must have a broad knowledge of what is being taught and why.

More and more, art teachers are maintaining an intense interest in the development of their own art expression. The good teacher should develop his or her own creative art form as a part of the teaching function. Although this does not necessarily mean that the teacher must compete with professional artists, it does mean that he or she must be dedicated to creative art activity as an individual. This will demonstrate to the students that the teacher has a strong interest in aesthetics and in promoting art throughout the school and community.

It is necessary that the art teacher have a good relationship with his co-workers and be willing to cooperate in matters where the visual arts are concerned. The areas where this may be necessary are student exhibits in school and community; and art projects such as logos, murals, window decorations, posters, bulletin boards, and accessories to the other fine arts activities. Every art teacher has a responsibility to not only to his or her students but to fellow teachers, the administration, and the public in helping to make art a respected and vital part of the school program. He or she must be interested in helping parents understand the school art program as well as the importance of aesthetics in enriching life.

Another important phase of the art teacher's job is to be sensitive to all possibilities for developing awareness in the students. It is in this area that the art teacher may find his or her greatest challenge--that of helping the students understand the unique qualities inherent in sensitive observation as well as the ability to feel deeply with all of the senses. A heightened sense of perception is especially important to the development of the students' ability to create.

Even though the life of the teacher is a busy one, he or she should schedule time for professional reading and participation in the activities of professional art groups. There is a constant need for contact with members of that teacher's own profession. These contacts are often provided through inservice meetings offered by the State Department of Education, national and regional art associations, and through state and local groups.

THE ROLE OF THE ELEMENTARY CLASSROOM TEACHER

As the major factor in the student learning experience, you should be aware of the importance art has in the emotional and intellectual growth of the child, and accept the fact that every individual has ideas and skills worth expression and recognition.

You should become acquainted with current philosophies and methods of teaching art, and recognize art as an integral part of the total school program.

You should have a working knowledge of tools and materials currently used in visual arts, and seek help from the art resource personnel in any part of your program that involves the use of art materials.

You should utilize every opportunity to cause the students to appreciate their art efforts as well as those of others, and to keep their active hands and creative minds at work in pleasing and positive pursuits.

You should recognize that the learning process and emotional release of the student is more important than the art product.

You should feel competent in stimulating and evaluating your students' art ability, and avoid copy fads and pattern book projects. Technical mastery of all methods and media is secondary to the ability to stimulate student participation and creativity in an open climate.

GOALS AND OBJECTIVES FOR THE CURRICULUM

1. To provide a usable, practical course of action for the elementary teacher's use in Art Education.
2. To provide the student with a series of art experiences which will enable him/her to:
   * see and feel visual relationships.
   * produce works of art.
   * know and understand art objects.
   * evaluate art projects.
   * personally enrich his life.
3. To establish and maintain continuity in the scope and sequence of the art education process.

EVALUATION

A Continuing Process

The most important element of evaluation is not the work of art, but the growth which the individual experienced producing it. Growth may be measured by behavior changes:

* a building of self-confidence.
* preserving the creative approach.
* developing maturity.
* increasing independence.
* a growing ability in the use of each element of design.
* developing a personal style or technique.
* developing an aesthetic responsibility in school and community.

Criticism should be given in terms that the child understands and in a manner that will build self confidence. It should help the child to form judgments for himself or herself as well as to make choices in regard to art objects.

The most effective form of growth measurement is self evaluation. As the children grow older, they need and want to know the reason why something they have done, or the way they have done it, is good, mediocre, or less than satisfactory.

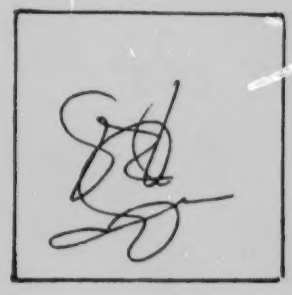
A skillful art teacher can draw forth comments about the process and the product. Sometimes a statement such as, "Now, tell me just what you are trying to do," will start the flow of thinking which results in self evaluation. Effective learning takes place within the individual. Effective evaluation is based upon the individual's understanding of his/her work.

An evaluation period should be a welcome relaxation for children and teacher.

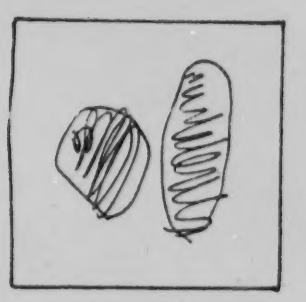
DEVELOPMENTAL STAGES

All children pass through certain developmental stages in art. The stages appear in a rather orderly manner starting at about the age of two and conclude (as far as the elementary grades are concerned) with the beginning of adolescence, at age 11, 12, or 13.

Age 2 or 3 — Scribble.



Age 3 or 4 — Implied shapes in scribble.



Age 3 or 4 — Geometric forms, shapes, mandalas, X's, radials, etc.

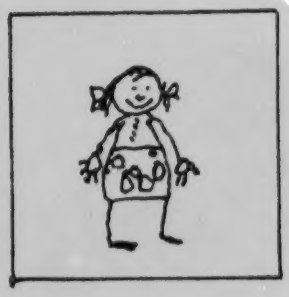
Age 4-5 or 6 — Recognizable forms appear--houses, people. These evolve from the preceding forms.

Age 5-6

Sex of the person drawn is shown. The actual physical appearance or clothes.

Age 5-6 or 7

As child matures more, features and detail are included in drawing such as fingers, feet, body, trunk.



Age 5-6 or 7

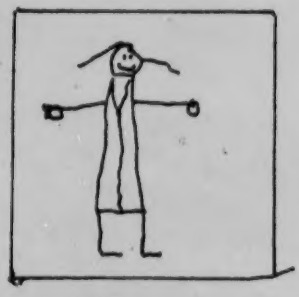
Size of the object is used to emphasize importance. Large head on mother is example.

Age 5-6-7-8-or 9

Each child has his/her own individual style of drawing and coloring. This becomes more marked as the child is encouraged to be inventive and free. A personal style is what you are after as an art teacher.

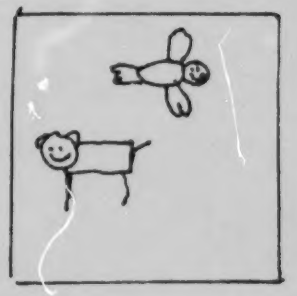
Age 6 or 7

Arms stick straight out, legs straight down. Figure drawn front view. Almost always smiling.



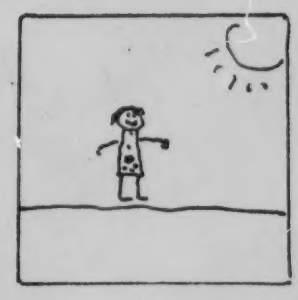
Age 6 or 7

Oftentimes animals have human faces looking at you.



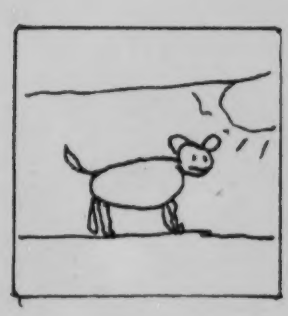
Age 6-7

A ground line or stand line appears. Previously objects seemed to be floating in space.



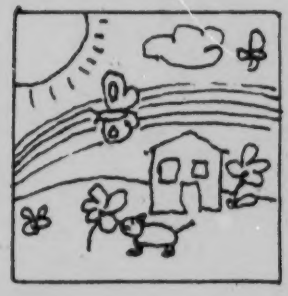
Age 6-7

Skyline appears but sky and ground do not touch. Object often floats between the two.



Age 6-7-8-9-10

Children most often draw people, animals, flowers, suns, clouds, trees, houses, rainbows.

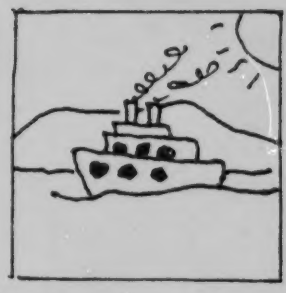


Age 7-8

Human feet are often drawn side view or what appears as 3/4 view. Seldom straight on.

Age 7-8

Sky and gound meet. Object placed in front of ground and sky. Now a context has been set for the object drawn.



Age 7-8-9

Pictures take on much detail. Children tend to use bright colors and apply them in a fantasy approach. As awareness develops more detail included.

Age 7-8-9

Action appears in picture shortly after context is established.

Age 8 or 9

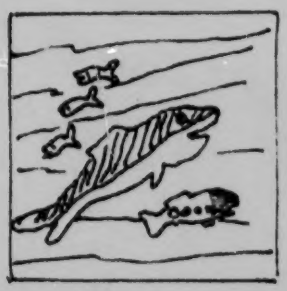
Profiles begin to appear about the age of 8 and increase gradually over the next years.

Age 8-9-10

Children may start to use shading in drawing if encouraged by teacher.

Age 9-10

Children more interested in color hues, values and intensities in their work.

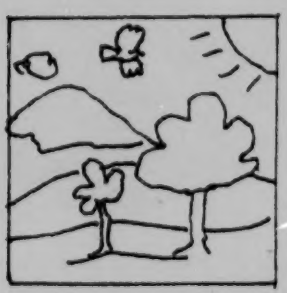


Age 9-10-11

Children can create depth (3 dimension) by overlapping forms.

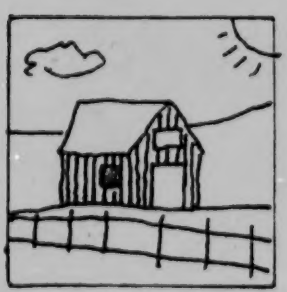
Age 9-10-11

Multiple baselines used to indicate distances.



Age 10-11-12

Children may start to use perspective in their drawing to show depth if taught by teacher.



Age 11-12-13

Realism starts to become very important to the child. Drawings become stiff and emotionless in contrast to the fantasy work of the primary and intermediate child.

Age 5-6-7-8 or 9

Development of skills with 3-D media roughly is that actualized when working with 2-D media.

SOME DO'S AND DON'TS FOR THE TEACHER

Often children come to the teacher during a lesson and say "I can't draw a cat"--or whatever--"will you draw it for me?" Please encourage the child to do his/her own work. A child <u>can</u> and <u>will</u> draw, paint, etc. the object if encouraged to do so. It is only on <u>very rare</u> occasions that the teacher should do a part of the work for the child.

Avoid "recipe" lessons where all children make identical objects such as paper flowers from a given pattern or casting plaster to form some pre-determined object to be painted in a prescribed way. These allow no room for creativity, skill development, individuality and personal expression. They are not art and should not impose upon the art period.

Virtually all materials that can be scrounged by the teacher can be used in art projects during the year. For example, the teacher will use styrofoam egg cartons for print-making; paper pulp egg cartons for dinosaurs and other constructions and papier-mache' objects; newspapers for covering desks and tables and for papier-mache'; wood for constructions; bottles for papier-mache' bottle people; cloth and fabrics of all kinds for batik, tie dye, puppet clothes, etc.; carpet scraps for environment constructions; wire, string, etc. for sculpture and weaving; discarded video tape for weaving; leather for craft objects and on and on. It is a very good practice to habitually send notes home with children requesting parents donate items you know you will need for certain projects and any items and materials they feel might conceivable be used by the teacher for art.

Under no circumstances should children be provided dittoed pictures to color, as this defeats the whole purpose of the art program in the school. Children should always be encouraged to create their own art as art is by definition self-expression.

HINTS ON HANDLING MEDIA

Papier-mache' hints

Papier-mache' is an inexpensive, easy to use and expressive art medium. It has a great advantage to the child in that it is very difficult for children to make identical objects because of the inherent freedom of the materials; consequently, inventiveness and originality are practically inevitable. This sculptured medium is also very appropriate for all grade levels. The only real difference being the skill, subject matter, and conceptual level of the children.

The common papier-mache' utilized in the schools is newspaper strips dipped in a mixture of wheat paste and water about the consistency of gravy. The dry wheat paste may be purchased at hardware stores or stores handling wallpaper. The most economical and practical size to buy is 5 lb. bags.

The process of constructing a papier-mache' sculpture is basically constructing an armature, nearly the shape of the desired sculpture*, and then applying newspaper strips dipped in the wheat paste mixture to the surface. The strips, after being dipped in the wheat paste, should be squeegeed off some with the fingers. A little practice will tell you how much to squeegee off. If too much is left on, the sculpture's surface will be lumpy. If too much is wiped off the strips will not stick.

If there is not time in an art period to finish the application of the papier-mache', it is all right to let it dry and to finish later.

A smoother surface than one produced by the newspaper strips may be achieved by applying as the final covering either paper toweling or facial tissue dampened with wheat paste.

Completed sculptures may be painted with tempera and then coated with verathane or other gloss or semigloss finish to produce rich lovely color.

*Cardboard boxes, paper towel rolls, tagboard, etc., taped together with masking tape.

CLAY HINTS

One of the more traditional materials used to create art forms is clay. It is also one of the least expensive and the most abundant mineral on earth. Children from kindergarten up love to work with it, and there are appropriate lessons for all levels.

Clay can be purchased either in dry or wet form. The least expensive is the dry clay. Pre-mixed clay will cost two to three times as much per wet pound as the dry clay. To some teachers the difference in price may be worth avoiding the effort involved in mixing the clay. Some districts, however, solve the mixing problem by having the school janitors mix it.

To mix large amounts of clay (by the 100 lb. bag or multiples thereof), the approximate mixing proportions are 100 lbs. of clay to 2 gallons of water. Place some of the clay in a large plastic garbage can, pour in some water, add more clay, then water, etc. Cover with the lid and let stand for several days. The water will completely disperse throughout the clay. The wet clay in this form must be wedged thouroughly before using. Wedging is a process of kneading the clay to the point where it is consistently smooth and there are no air bubbles present.

Smaller amounts can be mixed using the same proportion of clay to water in a bucket and kneading even smaller amounts or dry chaulking in a plastic bag.

It is a good practice to have the children do a portion of the wedging. They do this at the beginning of the lesson by tearing the clay in half and banging the two halves together about 20 times. Also as they work to form their ball of clay and the object they intend to make they will naturally wedge it still more. Surfaces upon which children can work with clay can be oil cloth wrong side up, heavy plastic, or newspaper. Perhaps the most common is newspaper which has advantages and disadvantages. Newspapers absorb moisture from the clay as one works on it which is good if the clay is too wet. However, paper tends to soak up and stick to the clay or mix into it. Later, when the clay is fired it may crack because of the foreign matter on it.

Have a container of water and if possible, a sponge for each child or work station. The water can be used for smoothing surfaces, making slip, dampening clay that is too dry and clean up. The sponge will be used for cleaning.

Clay and sinks are simply not compatible. Clay should never be put into sinks. The containers of water at the work stations should be poured and rinsed out in a large container such as a bucket, then washed in the sink. Children's hands should also be washed first in the bucket.

After the objects made by the students have dried (3 or 4 days for bowls, etc.; a week for thick objects such as animals) they may be fired in a kiln. Unfired clay is quite fragile and breaks easily. One may add one part dextrine or table syrup to 25 parts clay to increase its strength but the clay cannot be fired and this mixture has a tendency to spoil, if stored.

Every grade school should have a kiln available for the teachers to use. The cost of a kiln approximately equals the cost of keeping only [illegible]he high school football players in a uniform. This amount of money is certainly not too much to ask for a quality art program. A kiln when properly treated will work trouble free for 10-15 years.

Once clay has been fired it may be painted. If the paint is too bright it can be scrubbed off under running water to produce less intense colors. Once the proper colors have been achieved the object may be dipped in melted parafin to produce a glaze.

TEMPERA PAINTING HINTS

Tempera is the most common, least expensive and perhaps the most rewarding painting medium that school children will use. The paint may be purchased either in dry powder form or pre-mixed. Since tempera is less expensive in powder form, easy to mix, and once mixed tends to sour if not used during the school year it is perhaps best to purchase the dry tempera and mix it as needed.

Dry tempera can be mixed by simply adding water to the jar it comes in and shaking or by mixing the amount needed in smaller containers such as baby food containers. When mixed the paint should be about the consistency of light cream.

One good way to control the small containers of tempera that children will be using is to place several colors in a box snuggly enough together so that they will not spill. (Perhaps the high school shop class would make such boxes.)

If children do have an accident and spill paint on their clothing it should be washed out immediately as it will tend to stain if left to dry.

It is extremely frustrating to children to have to paint with brushes that are inappropriate or inadequate for the task. A supply of good brushes of <u>all sizes</u> should be available to the children. Children, like adults, cannot be expected to paint small detail with a large brush or to work with brushes that are sloppy or floppy or worn out. To preserve the brushes when the children are through painting, have them wash the brushes, shape them and store them <u>brush end up</u> in a can or other container.

It is best to paint on table tops if possible but this does tend to get the children's clothing such as sleeves and shirt or blouse fronts into the art. If the teacher can collect parents' large discarded shirts for each child to wear, a lot of this problem will be eliminated.

When the painting period is over, the lips of the small containers of paint should be wiped off and lids put on so that the paint will not dry out and will remain fresh longer. When using the bottles later, often times the lids tend to stick shut. Do not try forcing them open, just run under warm water for a short time and they will release easily.

THE ELEMENTS AND PRINCIPLES OF DESIGN

The elements of design are the components with which all visual art is created. If one were to attempt to break down into generalized visual components any work of art there are a liminted number of components one can derive. These are commonly listed as: line, point, shape, pattern, texture, size, positive and negative space and color. Just as one may analyze the elements of music in terms of rhythm, tone, and others, art is analyzed in terms of its elements.

A knowledge of the elements of design is a great benefit to the teacher in terms of directing students toward the full and appropriate utilization of all visual tools at the student's command. To be able to recognize, for instance, that the surface quality of a pot can be greatly enhanced by the use of a series of bead-like points around the opening is contingent first upon being aware of what elements of design are commonly found in art works of this kind, and secondly, how they can be applied to increase the aesthetic value of the piece.

The elements of design constitute the visual vocabulary of art. Without having this rather general verbal link between what we understand with our visual intelligence and can express in verbal terms we are at a loss to direct our students. As teachers of art we must know these terms and be sure our students understand the concepts underlying them.

Point

Sometimes point is not included in the list of design elements, but we feel it is a very easy term with which to communicate, to identify in recognized works of art and to direct the application of in the works of students. Examples of point in works of art are in a string of beads overlaying the torso of an African wrestler delineating the contour of the body, the staring eyes of the subject of a portrait or the painted points of a bracelet of a ceramic Indian figure.

Line

The universal element of art is line. It outlines all objects and it may be an inherent characteristic of the work itself as it is in a weaving. Sometimes line is not noticable at first for what it is as is often the case in the potters "throwing" marks (the lines left by the fingers when a pot is thrown). Line may be drawn, etched, implied. It may confine, shape, direct, or cause the feeling of motion. It takes practice, like all the other design elements, to utilize fully and well.

Shape.

The area enclosed by line either 2 or 3 dimensional is called shape. A picture may be filled with a myriad of shapes or contain just a few. The shapes represented by the artist, when the work is truly a creation of the artist alone, are unique to that person. They represent and contribute personal "style." The number of shapes is limitless. What we try to do when teaching art in school is to direct students to develop the technical skill and the visual and conceptual maturity to be able to create art works of their own personal style. When this happens we know that they are expressing themselves in their unique manner. The shapes they choose to develop and refine are fundamental to this process.

Color

Obviously as one of the most important elements of design, color is involved in all art. "Hue" is another term meaning color. A color may range from dark to light. The range of dark to light in a color is called "value". A color with much black in it is said to have a dark value or "shade." One with much white in it is said to be of light value or a "tint." "Intensity" refers to the purity of the color. A color is grayed by mixing the color opposite on the color wheel with it.

Color is a primary vehicle in art of the expression of feeling and emotion. It can and should be an integral part of the student's personal style. Do not inhibit children's choices and use of color. Do not impose "accepted" standards on their art work. For instance, if a child's choice for the color of the sky is red instead of blue, encourage the use of that color.

Space

In general terms, space is the area into which a picture is divided. Space is normally divided into two sub-divisions - positive and negative space. Positive space is the object of a picture such as a tree, an animal or a house. Negative space is the area surrounding the positive space. The concept of space deals with the division of the area of a picture.

Texture

Texture can refer to either the tactile surface quality of the art work or to the visual surface quality. A surface possesses a texture that will be sensed by touch. It can be smooth, rough, soft, pebbled, etc. It will also have a visual textural quality based upon the technique the artist has used such as air brush, pen, paintbrush, collage and the medium applied. It is impossible to produce an art work without texture.

Size

Size can refer to shapes or forms within an art work, the art work itself or the frame of reference within which the art work resides. We tend to subconsciously think of an artwork or parts of it in terms of grasping size, personal body size, distance of the object expressed--image size, or size relative to the total surroundings.

Size used as an element of design is a much less obvious thing than color, shape, or texture. Yet it has very strong emotional impact.

Size in childrens' art should be allowed to vary widely. Children should be encouraged to create very small and detailed art works as well as huge (twice life size) objects such as stuffed and soft sculpture and large murals.

PRINCIPLES OF DESIGN

All art works are composed of elements of design. Those elements are organized according to certain general principles. The principles commonly used in organizing the elements are: balance, accent, unity, rhythm and variety. With each art lesson it is very important to encourage children to use appropriate elements and principles of design. At the end of each lesson in this guide are suggested design elements and principles that can be incorporated in the lesson.

Balance

All elements of design can contribute in their own way to the balance of art work. The ultimate test of balance is the feeling of balance the work gives the artist and the viewer.

Balance is normally broken down into two sub-categories:

Formal Balance. All elements are used in a symmetrical manner about a chosen axis.

Informal Balance. Elements are used in an asymmetrical way yet balanced by using equal visual and tactile weight throughout the work.

Accent

The process of achieving interest and avoiding monotony by using color, line, size, shape, other elements to accent an area or areas of an art work.

Unity

The finished art work should have a feeling of completeness and order. All elements should work together to produce the feeling the artist wants.

Rhythm

Design elements may be repeated individually, in groups, in groups of varying size, etc. to produce a feeling of rhythm to the viewer.

Variety

Varied use of the elements of design and the principles prevent an art work from becoming visually monotonous.

EXPERIENCES AND SUGGESTED GRADE LEVELS

NOTE: Although lessons involving the following experiences are suggested for certain grade levels, teachers should know that these are suggestions only. Therefore, they should feel free to adapt any of these lessons to other grade levels if deemed appropriate.

Experience	Suggested Grade Level
Painting	
Tempera	K-6
Sponge	K-6
Finger painting	K-6
India ink and water color	3-6
Antique painting	3-6
Water color - wet and dry	3-6
Drawing	
Family, home pets	K-6
Animals	K-6
Still life	2-6
Landscape	3-6
Contour figure drawing	3-6
Chalk still life	3-6
Papier-Mache'	
Hand puppets	1-6
Bottle people	1-6
Animals	1-6
Dinosaurs	2-6
Airplanes	2-6
Printmaking	
Vegetable	K-6
Styrofoam	2-6
Monoprint	1-6
Sandpaper	2-6
Cardboard and inner tube	2-6
Paraffin	3-6
Glue line relief prints	2-6
Linoleum block	3-6
Woodblock	4-6
Aluminum foil relief	3-6

Experience	Suggested Grade Level
Clay	
Animals	K-6
Pinch pots	K-6
Fold pots	1-6
Form or psychodylic	2-6
Coil pots	3-6
Stuffed animals	3-6
Slab pots	1-6
Masks	2-6
Sling and hump trays	3-6
Stuffed heads	4-6
Sculpture	K-6
Jewelry	2-6
Weaving	
Paper weaving	K-6
Unusual forms	1-6
Burlap	3-6
Twig loom	3-6
Sculpture	
Assemblage	K-6
Sandcasting	K-6
Flour dough	2-6
Paper sculpture	K-6
Plaster and Clay - Bas-Relief	3-6
Plaster coated animals	2-6
Box sculpture	1-6
Soft sculpture	1-6
Resist	
Ditto resist	K-6
Crayon - watercolor resist	K-6
Tempera - india ink resist	3-6
Murals	
Painted murals	1-6
Paste-up murals	1-6
Paper banners	2-6
Permanent wall murals	4-6
Body murals	3-6
Paper	
Multi-media tissue paper collage	1-6
Stuffed paper objects	1-6
Tissue paper overlay - realistic	1-6
Three-D tagboard masks	3-6
Japanese fish kites	3-6
Tissue paper jewelry	2-6
Picture stabile	3-6

Experience	Suggested Grade Level
Miscellaneous	
Crepe paper or tissue paper tie-dye	2-6
Blatto bugs	K-6
Crayon batik	3-6
Edible stained glass cookies	3-6
Apple head dolls	3-6
Batiks	4-6
Tie and dye	4-6

LESSONS

KINDERGARTEN-FIRST GRADE

PAINTED MURALS

The painting of a mural is an excellent way for the entire class to participate in a large wall decoration or bulletin board. Murals lend themselves beautifully to social studies topics. Also, they provide a good opportunity for developing respect and tolerance for the various creative abilities of other students. Children develop aesthetic judgement while sharing their own art work and talking about the work of others.

Materials

large 3' x 7' piece of butcher paper
brushes
newspaper
paint
white chalk

Procedure

Oftentimes the teacher may prefer to have just one mural. If this is so only about 5 or 6 students at most should work on the mural at one time while the remainder of the class is engaged in some other activity.

If the entire class is to paint at once, 5 murals would be most appropriate. If the topic chosen were transportation, one group could work on cars, another trains, others on airplanes, ships, animals.

Each mural paper should be lined with newspaper around the outside edges. Have the children work in groups on the floor. Select a leader for each group. Each group will need a set of paints. Have children first plan the mural using white chalk. Discuss size and the overall plan with each group.

As the children paint have them choose one color at a time for which they are responsible. Never set the paints directly on the mural. (In case of spillage the project will not be a total disaster.) As the children need another color they replace it by exchanging it from the central paint storage area. ,

Oftentimes murals are enhanced by outlining the images with black paint. This gives the mural impact and an overall consistency.

Many topics are appropriate for murals such as communities, homes, businesses, apartments, trailer courts, various types of farms, different kinds of animals such as those that live in water, forest, the jungle, underground.

Vocabulary

mural

outline

cooperate

Design Elements and Principles

Since murals are cooperative ventures, much stress should be placed on balance, form and organization. These design principles should be discussed with the children as they plan and execute the mural.

TEMPERA PAINTING

Tempera is a most difficult medium for the kindergarten student or first grader to master. Students need many opportunities to discover the complexities of the medium and begin to develop some control and technique. This cannot be accomplished with only a few painting sessions. Tempera painting can be integrated with many class activities; thus, allowing the first grader to become confident and controlled in the use of this medium.

Much of the first grader's beginning experience will be of a discovery nature. They will need to learn when to stop painting and when not to stop; how much paint the brush will hold and how paint reacts when one color is superimposed on the next. Coordination is still poor at this level, and the difficulties of dripping paint and spilling need to be overcome.

These continued painting experiences are necessary to provide a developmental program in the painting area. If children do not master some skill and control in the primary grades, painting becomes very discouraging at the intermediate level when the more complex skills of perspective and composition and the beginning stages of realism begin to emerge.

Materials

newspaper
brushes
tempera the consistency of heavy cream
painting surface--paper, cardboard boxes,
wooden shingles or flat boards

Subject material is unlimited for kindergarten and first grade painting. Family, homes, farm, circus, zoo animals, halloween, transportation, dinosaurs, flowers, birds, insects, and butterflies are all appropriate.

Procedure

It is probably easiest to work on a flat desk or table top when painting with tempera. The child should be supplied with six or more of the basic colors of paint. If the paint is contained in small jars such as baby food jars, these can best be handled by placing them in a small box just large enough to hold them. They will be difficult to spill in such a box.

Provide the children with good brushes of the appropriate size for the painting task, one for each color. Show the children how to dip the paint brush in the paint and wipe the excess on the edge of the jar.

Discuss the subject matter with the children in a short motivational session before the lesson. Solicit ideas about what might be in the pictures. Encourage the children to include as much detail and decoration as possible. Do not inhibit the children in their choice and use of color and image. (Young children are very imaginative in their art work.)

Caution the children not to paint over one wet color with another as the result will probably be a muddy color.

Vocabulary

tempera
blend
smear
"run together"
dilute

Design Elements and Principles

Children should be encouraged to make the entire paper interesting by filling in the background areas possibly using a variety of colors or incorporating design and pattern such as stripes or polka dots.

Tempera can be used in combination with sugar, chalk, cray-pas, or crayon to add variation and interest throughout the year.

CLAY PINCH POTS

An easy introduction to clay is to have the children do pinch pots. This clay lesson does not take great motor skill yet will result in an art object of which the children will be proud.

Materials

newspaper
premixed clay
tempera
brushes
paraffin
double boiler
container with water

Procedure

Have the children work on newspapers and provide them with a container and water. Give each child a small amount of clay, enough to form a ball that will fit one hand. Let him then play with it a few minutes to get the feel of it. Tell the children about the need to "wedge" the clay. Then have them tear the clay apart and bang it back together a few times. The clay should then be formed into a ball. Have them hold the ball in the hand they don't write with and raise their other hand about their heads. With the thumb of the raised hand pointing down like a diving rocket ship have them "dive" it into the center of the clay ball (but not all the way through). With the thumb remaining in the hole they will pinch the clay between the fingers and the thumb several times around to form a small pot.

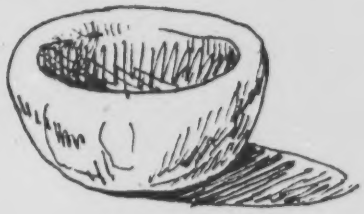
The children may, using the water in the container, smooth the surface of the pot when finished. Be sure to put the children's names on the pots. Set aside to dry for several days. If a kiln is available, fire the pots. If the pots have been fired before painting they may then be dipped in melted paraffin as a final glaze.

Vocabulary

wedge
clay
pinch pot
paraffin
kiln
glaze

Design Elements and Principles

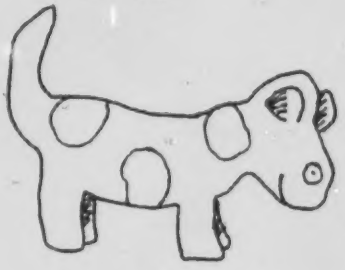
The formed pots should be rather round and should balance and not fall over. Pots can also be colored with tempera. Color, balance and form are all elements and principles of design. Although the teachers need not refer to these as elements and principles she/he should encourage the children in their use when doing ceramics or any other art form.



CLAY ANIMALS (cats, dogs, pigs and others)

A second and slightly more advanced lesson in clay is the modeling of animals. Have the children perform the same wedging process as with pinch pots.

Materials



newspaper
premixed clay
tempera
brushes
paraffin and double boiler
container with water

Procedure

Provide each child with a piece of newspaper or oil cloth (upside down) to work on, a piece of clay about the size of an orange, and a container with water. Have the children shape the clay into a potato form and place it in their left hand if right-handed or right hand if left-handed.

The neck and head are then squeezed from the end of the potato that is away from the child. The animal is turned over and the legs are gently pinched from the under section. Features are pinched out and/or marked with a pencil for ears, eyes, mouth, etc. All projects should sit or stand securely. The children may use water to smooth the surface of the animal when the modeling is completed. Also, if pieces of clay are to be joined, tell the children to wet both parts to be stuck together. Be sure children's names are on the underside of the sculpture as they will forget which animal is theirs after the time period required for the animal to dry and be fired if firing is to be done.

When animals have dried about a week, they may be fired if a kiln is available and then painted with tempera as the child sees fit. (Do not restrict the child's imagination in decorating the animals. Some children will use purple, green, red or other unusual colors.) Then as a final glaze and protective surface dip the pieces in melted paraffin.

Vocabulary

wedge
glaze
clay
balance
modeling

Design Elements and Principles

A design principle that may be introduced with the animal lessons is "balance". This may be effectively illustrated by the finished animals as some will stand well without falling and others may be easily toppled or will not stand at all.

PAPIER-MACHE' HAND PUPPETS

Papier-mache' is a very inexpensive yet effective sculpturing medium. There are two common forms of papier-mache'. One is papier-mache' pulp[1] used to directly model an object and the other is the layering process using paper strips and wheat paste to cover a form or armature.

[1]See recipe p. 226

In the second process, the one used for this puppet lesson, wheat paste* is one of the essential ingredients. One can purchase wheat paste from school supply houses, hardware stores or stores that handle wallpaper (it is commonly used as wallpaper paste). It is usually least expensive when purchased in 5 pound bags.

The layering papier-mache' process is really nothing more than wetting narrow strips of newspaper, paper toweling or some other paper in a mixture of wheat paste and water and applying these to an armature. When the strips dry the surface becomes hard. This surface can then be painted or decorated in some way, as with cloth or art tissue paper. If it is not possible to finish the papier-mache' application in one lesson, the objects may be permitted to dry and completed at a later time. Papier-mache' objects tend to be somewhat rough in surface appearance and detail when compared some other sculptural techniques. This appearance is not artistically objectionable. If a smoother surface is wanted, then one can apply facial tissue dipped in wheat paste as final layers.

Children can make hand puppets in conjunction with other subjects that they may be studying such as social studies or science, and use these puppets in small dramatic presentations.

Materials

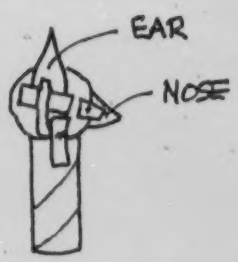
old newspapers
wheat paste
masking tape
meat trays or other containers
toilet paper or paper towel rolls
tag board or other thin cardboard or heavy paper
tempera paint
brushes
verathane
feathers, cloth, twine

*A flour and water mixture is not as satisfactory as it tends to spoil in time.

Procedure

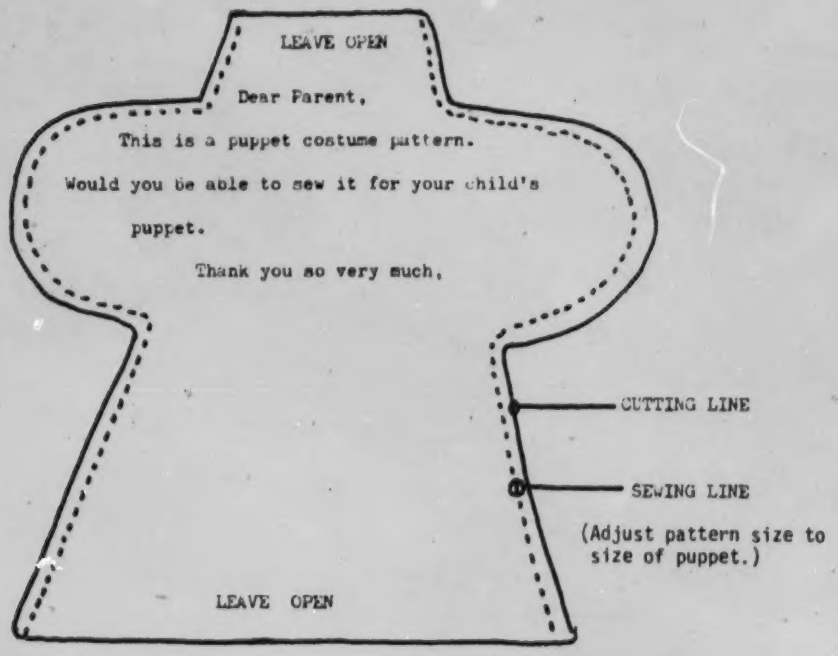
Give each child a toilet paper roll or equivalent and a meat tray with wheat paste. Also it is best to pre-cut newspaper strips for the children, approximately 1" x 6". Have the child wad up newspaper into a ball somewhat larger than the end of the paper roll. Using masking tape, tape the ball into shape and then tape it to the end of toilet paper roll.

If features are to be added to the puppet they must be added at this time, before the papier-mache' is applied. Ears, cut from tagboard or a beak or whatever can be taped to the ball of paper. (When papier-mache' is applied and dried these added features will gain strength.)



After features have been added apply newspaper strips dipped in wheat paste to the armature and then lightly remove excess paste with the fingers. Too much paste will cause a muchy, lumpy surface; too little will cause the strips to fall off. When the entire surface of the head and about 1" down the toilet paper roll have been covered with two or more layers, set aside to dry.

When the puppet heads have dried they may be painted with tempera. Also clothes must be added. The children, of course, are too young to cut and sew the puppet's garment but this can be done either by the teacher or the child's parents. A pattern is supplied here for a garment, though other designs may be used.



All kinds of decorations can be added such as feathers, leather and twine. After sewing, the garment can be glued to the neck of the puppet. Most of the lower part of the paper roll should be cut off to permit the hand to fit into the garment and fingers into the head.

Twine and string can be glued to the head to provide hair and/or other decorations.

Verathane or other gloss or semi-gloss clear covering can be painted over the finished puppet head to add richness in color.

Vocabulary

papier-mache'
wheat paste
tempera paint
garment
expression
puppet
masking tape
sturdy

Design Elements and Principles

With the additions of points of color and line such as twine for hair, hand puppets become much more interesting and artistic as with most art. Encourage embellishments such as these to enhance the artwork.

DRAWING

The process of transforming a three-dimensional image to a two-dimensional surface is a very complex one. Children, from the time they start to scribble to the age of realistic drawing (about 12 years old) go through many stages. Drawing, until about adolescence does not mean realistic reproduction. Conceptually, young children simply cannot handle adult standards of realism. Do not impose adult standards on your student's drawing, rather provide guidelines in terms of the elements and principles of design. For the most part, these can be understood and are appreciated by the child.

Materials

Any drawing instruments may be used by the children but especially good are felt pens or soft lead pencils.

White drawing paper, construction paper, or any other drawing surface.

Procedure

Subjects that particularly appeal to children are their house, parents, pets, animals. Drawing lessons are especially good for adoption to other subjects that are being studied in class such as transportation, dinosaurs, circus animals, forest animals, farms, and certain social studies units. Whatever subjects are chosen, as with any art lesson, a brief motivating discussion should be held first. Ask the children their experiences or descriptions in relation to the chosen subject. If a subject such as dinosaurs is the topic, pictures shown them just before and displayed during the lesson will prove helpful. Encourage the children to use such design elements as dots, zig-zag lines, circles, etc. to decorate these subjects. Also, children may fill in their drawings with color as part of the lesson.

Other materials that are good for drawing are ball-point pens, charcoal, brushes with ink or paint, cray-pas (oil-based chalk), crayon, and chalk.

Vocabulary

The correct name of the medium used in drawing or coloring, i.e., cray-pas.

line
circle
point
imagine

Design Elements and Principles

Encourage the children to "fill their papers" (balance and composition) and to decorate their images and use lots of nice color. (Do not be concerned that the colors chosen by the children do not realistically represent the objects or subjects drawn). Instead encourage the imaginative use of color.

SPONGE PAINTING

Sponge painting is an excellent method of making children aware of light and color in material by creating a shimmering textural quality. For instance, a tree is not one shade of green but incorporates shades of green, yellow, blue, brown, red, orange, etc.

Materials

small cut up sponges
paint
egg cartons
construction paper

Procedure

Any outdoor scene is appropriate for this lesson. Fall trees can be an especially meaningful topic for first grade. Stimulate visual awareness with a walk through tree and bush areas or have children collect samples and bring them to school.

Pour small quantities of paint into egg compartments. Provide a sponge for each color. (The egg cartons can be thrown away for easy clean-up.) Stress the difference between the patting approach for one effect and the rubbing motion for another. Representation of grass, tree trunks and branches can best be achieved by the rubbing technique. The foliage of the trees can best be achieved using the patting techinque.

If doing fall trees, choose reds, oranges, yellows, or other appropriate fall colors. Start with the darkest colors first. As the children apply yellow on top of red they will discover these two colors make orange. Continue to overlay several colors.

Vocabulary

rubbing
patting
scrubbing
blend
light airy quality
dark
overlay

Design Elements and Principles

Since the natural result of rubbing one color into another is the creation of a new color, the design element of color and how it is created is appropriate to this lesson. Encourage the children to watch for the "new" colors.

> *The most important element to evaluate is not the work of art, but the growth which the individual experienced during the process of producing it.*

FINGER PAINTING

The finger painting process is especially good for breaking through inhibitions about the possible messyness of art. At first many children hesitate to get their hands and arms dirty but with a little encouragement they can really get involved in this lesson.

Materials

liquid starch or home made finger paint*
finger paint paper
powdered tempera
newspapers

Procedure

Like all art sessions some time should be spent prior to the lesson motivating the children. Some familiar subject should be used as a theme for the lesson such as the children's home or their pets or games. Build up enthusiasm for the finger painting session by having children tell their experiences about the chosen subject.

Demonstrate for the children how finger painting is done. Show how the side of the hands can make a wide mark, how the fingertips make medium marks and parallel lines, how the fingernails can make narrow lines, and how to incorporate these differing effects into the picture.

Spread newspaper on the tables. Give each child a piece of finger painting paper. Pour a 4" puddle of starch of finger painting formula on the middle of each piece of paper. Put about one teaspoon of powdered tempera with the starch. The children can then go to work mixing and spreading the finger paint over their paper. Encourage them to completely cover the paper with the finger paint. Then do their picture.

When the children have finished have them pick up newspaper and painting and take them to the area set aside for drying, such as the hall or floor at the side of the room.

Vocabulary

free movement
finger paint
tempera powder
starch
finger paint paper

Design Elements and Principles

Freedom of movement characterizes the finger painting lesson. Essentially, a finger paint picture is made up of many free-flowing lines. The line characteristics, then, encouraged of children in this lesson are movement and freedom.

*Finger paint Formulas

#1 1/2 cup cornstarch
1 cup of boiling water
(refer to prccedure below for mixing)

#2 1/2 cup laundry or cornstarch
1 qt. boiling water
1/2 cup soap flakes
1 teaspoon glycerine
(refer to procedure below for mixing)

#3 1/2 cup laundry or cornstarch
1 qt. boiling water
1 1/2 cups soap flakes
1/2 cup talcum powder
1 teaspoon glycerine

Mix starch with enough cold water to make a creamy paste. Add boiling water and cook until it becomes transparent or glossy looking. Stir constantly. If formula includes talcum powder, add it and stir. Let mixture cook somewhat and add soap flakes, stirring until evenly dissolved. Add glycerine and stir.

To preserve mixture for longer time add:

a. a few drops of formaldehyde
b. a teaspoon of oil of clove and powdered alum
c. 2 tablespoons of sodium benzoate

PRINT MAKING (GADGET-VEGETABLE)

The print making process is an important aid in establishing an early concept of design and order. Many occasions may arise when it is essential to reproduce a series of like motifs, such as placemats, program designs, book covers, and banners.

The process of continuing a pattern is often a difficult concept for kindergarten or first grade. It is therefore advisable to let the child become familiar with the stamping process in a random overall design before introducing the organization of patterns. This can, however, take place within the same lesson.

Materials

newspaper
paper
brayer

either: black printers ink or very thick tempera
spread thinly in a meat tray

flat surface for ink or tempera: meat trays, egg carton top, heavy plastic

gadgets: spools, blocks, potato mashers, checkers, tinker toys, etc.

vegetables: 1/2 onion, potatoes, carrots, celery, oranges, apples, etc.

Procedure:

Have the children roll ink or brush paint evenly on a flat surface. Press the gadget or vegetable onto the inked surface. Press printing object firmly on paper. Each time the object is to be reprinted the surface of the object should be re-inked for an even print.

When the child has established the right amount of ink and pressure to establish a successful print he/she will be ready to proceed with the concept of pattern.

Explain and illustrate that patterns can be achieved using different variations.

More than one print making experience will probably be necessary before the children become adept with the process.

Water-based block printing ink washes out easily if cleaned immediately after the session.

Vocabulary

gadget
pattern
brayer
even pattern
irregular pattern

Design Elements and Principles

Work on pattern of regular and irregular variations. Show samples of patterns and design. A pattern is a motif repeated in a regular sequence. Often children can find patterns in their clothing or in objects around the room.

ASSEMBLAGE (Sculpture)

Assemblage is the art of arranging and combining various objects in an interesting pleasing fashion. A good sculpture should be intriguing to look at and arranged in such a way as to be fascinating from all directions. If the child can be encouraged to design a sculpture in such a way that the lines of the material lead one's eye throughout the sculpture the work will be more interesting. Variation in sizes and shapes also contribute to the success of a work.

Materials

wood or plastic base
white glue
assorted sizes of wood scraps
bottle caps
small cans
wires
metal scraps

Procedure

Make sure the children are aware that the assemblage materials need to be constructed on a base. Otherwise, it will be very difficult to handle and store. Emphasize that the materials must be arranged to balance without glue because it takes too long to hold a piece in place until the glue dries.

Let the children arrange the sculpture until they feel it is interesting and pleasing to the eye. Then glue the assembled pieces together.

Distribute some materials to each child. Part of the challenge for the child is to create the sculpture with the existing material. However, the child may not feel he/she needs every piece or may desire more. It is often advisable to have one central box with extra material available. Unused pieces may be returned to the box.

The finished piece may be painted or stained if desired.

Vocabulary

assemblage
sculpture
balance
design
arrangement

Design Elements and Principles

Note the importance of a variety of sizes and shapes. Also direct the children to notice how the shapes can lead the eye around a piece of sculpture movement and how this contributes to the pleasing and interesting character of an assemblage.

> *Children's efforts are serious to them and certainly should never be pushed aside because the symbols do not meet certain accepted standards of how things really look.*

PAPER WEAVING

If children are to develop the small motor skills essential for more advanced weaving and the concentration necessary for the careful thought processes required for this type of work, paper weaving is good elementary training.

Materials

scissors
construction paper 12" x 18" of various colors
16 strips of paper 1" x 12" per child
glue
pencil

Procedure

Fold the construction paper in half the long way. Place the fold on table with the folded edge toward you. At the top open edge of the folded paper, lay one of the paper strips making sure it is carefully lined up with the edge of the paper. Lightly trace along the edge of the strip of paper all the way across the top.

Using the same strip, place it along the left hand open side. Have the top of the strip touch the pencil line just drawn. Mark along the strip with pencil. Now move strip over so it is lined up with the pencil marks at the top and on the left-hand side. Continue marking along the strip and moving the strip over until lines are drawn along the entire side of the paper.

Hold the paper on the fold. Begin cutting on the fold up to the horizontal line on the top. Stop at that line. Begin again at the bottom on the fold and continue cutting the penciled lines until the paper is cut into one-inch strips along the entire paper. Unfold paper.

Begin weaving by starting at the end and going under one strip and over the next. Do not skip any. Weave across the entire paper.

The second strip must start on the opposite side of the paper from the one above thus creating a checker board. Proceed carefully. Continue weaving until the entire paper is filled. After each strip is woven make sure it is pushed up snuggly toward the top.

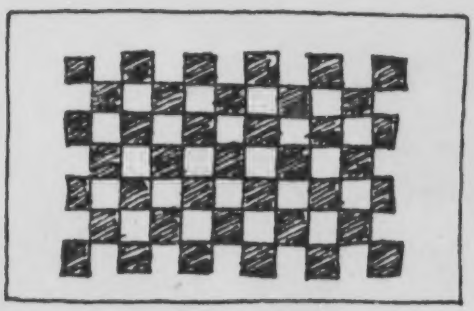
When the entire paper is completed the ends can be pasted down. This needs to be done from both sides.

Vocabulary

strip
weave
opposite
checkerboard
under
over

Design Elements and Principles

The basic checkerboard concept of design and weaving is established in this lesson. The element of pattern is inherent in the paper weaving project. This lesson goes hand-in-hand with the gadget-vegatable print lesson in incorporating repeated motif and pattern in children's artworks.



LESSONS
SECOND GRADE

54

DITTO RESIST

The ditto resist process is a fascinating lesson practically guaranteed to produce fascinating and beautiful pictures. It is a good lesson for all grade levels and works especially well with the primary grades.

Materials

used ditto carbons
white drawing paper
color crayons
pencils or ball point pens
large pan or bucket of water
newspapers

Procedure

Have the children place the ditto-carbon carbon side down against the white paper. Using a ball point pen or pencil they will draw a picture on the back of the carbon. (This will transfer the picture in the form of carbon to the drawing paper.) Then have the children color with bright colors and heavy pressure, the areas of the picture they wish colored. Have them avoid blue and purple colors as these blend with the ditto color. When all desired areas are colored (there should be plenty of blank areas left), have the children briefly dip the drawing in the pan of water. The carbon will flow in very interesting patterns across the picture but the crayoned areas will resist the carbon and retain their bright colors. Then immediately place the picture on a newspaper and set aside to dry. Newspaper should also be placed around the pan of water as ditto carbon drippings can be difficult to clean up from the floor or table.

A demonstration of the process before the class will highly motivate the children to this project.

Vocabulary

resist
pattern

Design Elements and Principles

Pattern is an especially good design element to include in this lesson. Stripes, zig-zags, and other pattern elements work especially well in the ditto resist process.

This is a very quick, inexpensive process which practically guarantees excellent results. It can be used just for the aesthetic picture quality itself or can also be utilized in making greeting cards, poster, and bulletin boards.

TIE-DYE WITH CREPE PAPER

The fact that crepe paper and art tissue paper bleed when wet provides the foundation for this lesson. Children love the quick simple tie-dye process described below for coloring t-shirts, wall hangings and other things.

Materials

crepe paper or art tissue paper of various colors
rubber bands
water in large mouth container such as cottage cheese carton
t-shirts, sheets or other white cotton materials

Procedure

Using wads of crepe paper or art tissue paper from the size of marbles to the size of golf balls; wrap with the material to be dyed. Use a rubber band to tightly secure the cloth around the crepe paper. These ties can be made end-to-end and/or side by side.

After tying all areas desired dyed, dip the tied wads into the container of water. Let soak for a short time and knead to force the color through the cloth. When the tied wads seem to have reached maximum saturation, remove from the water, remove the rubber bands and hang up to dry. (The colors produced are not fast.)

Vocabulary

tie-dye
dying

Design Elements and Principles

Color "intensity" is an element that can be discussed when viewing the finished products. Also the element of point is a natural for this lesson.

FINGER PAINT - CRAYON RESIST

This effective variation on the finger painting lesson can be used to combine the inherent freedom of finger painting with the more controlled technique required of crayons. It is particularly good for underwater scenes when blue finger paint is used.

Materials

powdered tempera
liquid starch or finger paint formula*
finger painting paper or butcher paper
crayons
newspapers

Procedure

Spread newspaper over the working area. Have the students draw and color a crayon picture on the finger painting paper. Several subjects are very good to use for this project: underwater scenes, large colorful flowers, breezy nature scenes, and sky scenes. The children should press hard on their crayons as intense colors produce the best results. Colors close to the color of the finger paint should be avoided. Encourage the children to use the entire paper. The finger paint should completely cover the surface. The colored finger paint should not be too intense in color as this tends to overpower the crayon picture.

Vocabulary

freedom of movement
resist

Design Elements and Principles

Finger painting is a natural medium to reinforce the use of "line" and "texture" as both are the result of the finger painting process. "Shape" both as it appears in the overall finger paint design and as it appears in the crayon picture should also be used during the follow-up discussion and evaluation period.

*See finger paint formulas in Recipe Section.

PRINTMAKING - STYROFOAM

There are many printmaking techniques available to the elementary school teacher. Styrofoam printmaking is probably one of the easiest and most satisfying for children. It embodies the fundamental printmaking concept of being able to produce the same image a number of times. Because of this it is very good for Christmas cards, valentines and other occasion cards.

Materials

styrofoam egg cartons, meat trays, etc.
water-based printing ink or tempera printing ink*
brayer
inking pad
paper used for printing
pencil

Procedure

Cut a piece of smooth styrofoam from the top of a styrofoam egg carton or meat tray. This will be the printing "block." Using a pencil, ballpoint pen or other semi-sharp instrument, draw the image to be printed into the styrofoam. The image should be pressed fairly deep into the surface of the styrofoam so that it will not fill with ink. (Remember that the image will print in reverse from which it is drawn so that printing should be backwards on the styrofoam.)

After the image has been impressed on the styrofoam, ink the surface of the styrofoam with the brayer. Place the inked styrofoam on a piece of pre-cut paper and press the back of the styrofoam until the image has been transferred to the paper. The image, of course, is white or the color of the paper since there should be no ink in the lines impressed in the styrofoam. The background will be the color of the ink selected. It is important to remember that the brayer should be inked on some smooth surface by placing ink on the surface and rolling the brayer over it in several directions until the ink has been spread evenly over the entire surface of the brayer. Only at this point should one use the brayer to ink the styrofoam.

Have the children make a number of prints so that they may select the best to display or use.

Vocabulary

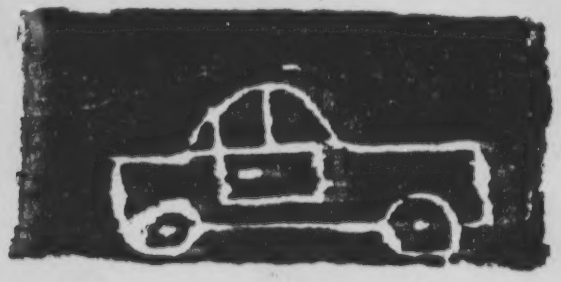
styrofoam
brayer
water-based ink
composition

Design Elements and Principles

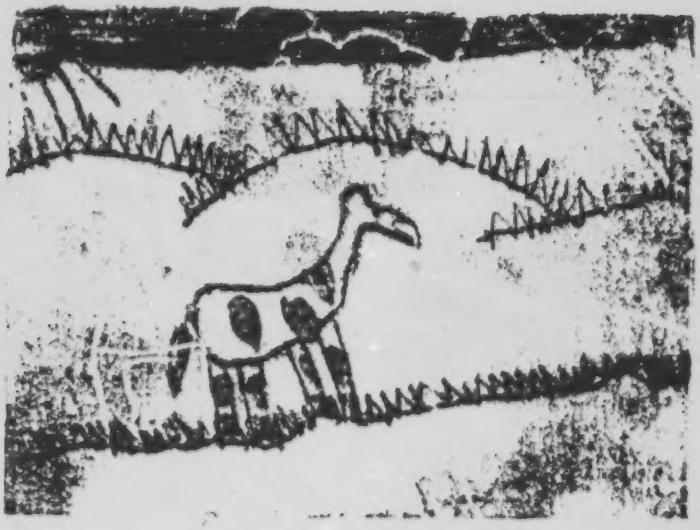
Like so many printing processes the styrofoam process is a natural to study the design element of line. In this case the lines cannot vary

*See recipe, page 221

a great deal in width and the process does not lend itself too well to detail. However, the unique feeling that the relatively thick lines give to the finished print is one children should be aware of.



PRINTMAKING - MONOPRINT



The term monoprint refers to a printing process that is used to produce only one print instead of multiple copies. The advantage to the process is that the single print gains a rather unique artistic quality through the process involved.

There are several types of monoprints, but the one that will be undertaken in this grade will involve the simple transfer of lines from an inked surface to a piece of paper.

Materials

soft rubber brayer
water-soluble printing ink
drawing or construction paper
heavier paper such as tagboard
lead pencils or ballpoint pens

Procedure

Give each child a piece of newspaper to work on, some drawing paper upon which to make their print and a soft rubber brayer and water-soluble printing ink of any color. (The ink and brayer can be shared by several children if there are not enough to go around.)

Show the children how to evenly roll out the ink on the piece of tagboard with the brayer. The ink should be spread evenly larger than the size of the picture to be drawn by the child. Then have the child place the piece of drawing paper on the inked tagboard and make a single line drawing paper with a ballpoint pen or pencil. The line drawing should be firmly done. Where the pen presses the paper against the inked tagboard a colored line will form. If, while drawing, the children press their hands too hard against the paper, ink will be picked up where their hands rub. Some of this "background" ink enhances the appearance of the print. Too much makes the background too dark and obscures the line the child has drawn. When the student has finished the drawing, the paper and tagboard are separated. The image on the paper is the print; however, oftentimes the negative image on the tagboard is also a worthwhile work of art.

Vocabulary

monoprint
printing ink
water soluble
brayer

Design Elements and Principles

The images produced in this process are very amenable to small detailed drawing. Have the children include small things, little patterns, circles, zig-zags, points, etc. in their drawings as this will reinforce the design elements of point, line, pattern, and texture.

PASTE-UP MURALS

This method of producing a mural is easy and effective. It is an excellent means of working with the entire class on a joint project and lends itself very well to social studies, fantasy lands, creative writing, or science.

Materials

large 3' x 6' to 7' roll butcher paper
small scraps of paper - assorted sizes and colors
crayons and/or cray-pas

felt pens
scissors
glue

Additional Possibilities

wall paper
tissue paper
cloth
foil

Procedure

Large background areas such as ground, mountains and water should be pasted to the mural background paper first.

The teacher can then tape up the mural paper with land forms on it at the front of the room. The children decide on parts of the mural they are interested in making. For instance, if the mural deals with transportation, some children will do planes, some trains, some buildings, some cars, and so on. They draw, color and cut out their chosen items.

Discuss sizes of objects to be made. Talk about far and near. Things in the distance might be smaller; up closer, larger. Outline the objects with black crayon or felt pen. Group some objects together so mural does not look cluttered.

It works best to take turns having one or two children help paste the pieces onto the mural paper with teacher supervision. Usually children will have time to make more than one object. As the mural progresses, the teacher might keep students informed as to what else the mural needs. As each child finishes his objects, he brings it up and lays it on a desk or table near the mural, then continues working on the next needed part.

Some Recommended Mural Projects

1. Interiors of homes, using wall paper for walls and carpets. Have the children draw furniture and people. Divide into kitchen, living room, dining room, bedroom, and bath.
2. Animals: farm, jungle, forest.
3. Seasonal themes: spring using tissue paper; winter, fall scenes also appropriate.
4. Outer space imaginary murals; may make parts of background in tin foil stripes and checks. Black butcher paper is very effective.
5. Thanksgiving: Mural could be divided into three sections--England, ship, new land. Old homes of England on one side, large ship with pilgrims, new land with trees, animals, Indians.

6. Community scenes.
7. Birds or butterflies--also effective in combination with tissue paper.

Vocabulary

outline
smaller
larger
distance
groupings

Design Elements and Principles

Variation in the size of the objects made by the children and the grouping of the objects in the mural are the key to a successful mural of this type. This same principle holds true for many other art works the children will produce; and thus, is also important because of the general application of these principles.

TEMPERA PAINTING

Second graders need many opportunities to paint in order to continue a developmental program. Painting can be integrated with many activities. Children need all kinds of experience with a subject before they are ready to paint what they know, think and feel about it.

Though classroom teachers are aware of the many possibilities for art expression that tempera paint provides, they often do not include it in their art program because of the housekeeping chores involved and the preparation. However, it is such an important element in a basic art program it should not be neglected.

Good subject areas might include: neighborhood helpers, neighborhoods, transportation, animals, fish, birds, seasons, insects, and others.

Materials

paper
tempera
newspaper
brushes
water

Procedure

As most of the tempera paint now comes in plastic containers, the paint could be mixed and stored in pop bottle compartments with six colors in each. This could be located in a central supply area where it would be available to the whole school. Oftentimes parent volunteers are willing to come to the school on a weekly basis to mix paints. For a class of 30, 60 containers of paint are desirable. Paint should be placed on tables accessible by the students from all sides. There should be a brush in each container.

Children take turns to choose the initial color they wish. As soon as they have used the color, it is returned to the box and the next is chosen. This cuts down on accidents.

Adequate time should be allotted for cleanup procedures. Brushes should be washed promptly after each painting session and never left overnight in the paint.

The following strategies have proved helpful in tempera painting sessions:

Have sponges available for accidental spills. Have children wear paint shirts. Remind children to wipe the excess paint off the brush against the inside of the container.

Suggest that children wait until one color is thoroughly dry before painting over it with another color.

Caution the class to be careful when painting next to a newly painted area if they do not wish the two colors to run together.

Vocabulary

texture
shapes
unity
pattern
design

Design Elements and Principles

Understanding color, shape, line, value and texture are basic to painting.

In all painting activities, the child should work toward balance and unity. Unity in the painting surface can be achieved through: light and dark patterns, color relationship, shape and shape organization.

> *Art education will serve as a foundation of good taste and judgement which will function throughout life.*

PAPIER-MACHE' BOTTLE PEOPLE

Creating bottle people lends itself beautifully to examination of the detail of dress and appearance of present and past cultures. Some appropriate areas for application of this lesson might be community helpers, people of other lands, book characters, and famous historical people. This same lesson can easily be modified to animal sculpture. The various shapes of the bottles lend character and will suggest a direction for the students proposed assemblage.

Materials

Step I

newspaper for table and for forming characters
papier-mache' (wheat paste)
strips of paper cut 1" x 6"
containers
bottles
masking tape

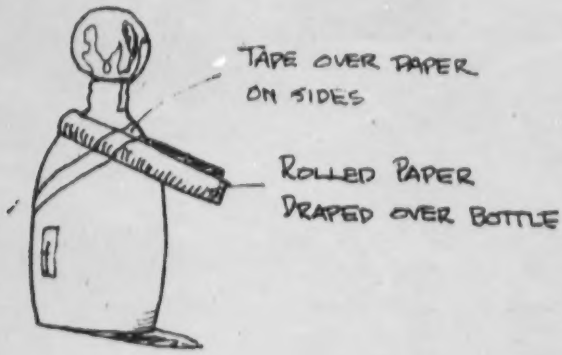
Step II

paint
yarn, ends of macrame, twine, string
fabric scraps
old buttons
Elmers glue
scissors

Procedure

Begin by wadding one single piece of newspaper into a ball. Secure the ball shape with a piece of masking tape about 3 1/2" long. Place on neck of bottle. Tape to the neck with about 4 pieces of tape about 3" in length. Make sure it is securely taped.

Roll one single newspaper to about 3/4" thickness. Tape both ends. Tape at the base of the neck of the bottle horizontally. Fold around to the front of bottle and tape over the shoulder criss-crossing the tape in front for stability.



SIDE VIEW

Papier-mache' the entire bottle. For shirts or capes, papier-mache' can be applied over a sheet of newspaper. Fold in ends as in a seam. Double the paper for additional strength and drape much the same as fabric. It will dry in whatever position you leave it. Ruffley hats can also be fashioned in this manner.

More intricate facial features can be created by soaking kleenex in wheat paste and placing it over the faces. Features can then be modeled much the same as clay--by forming a nose, indenting a mouth, eyes, etc. Call children's attention to facial features. Which areas protrude the most? How much? The mouth does not indent unless it is open. Build up the chin. Make sure all paper ends are smoothed. Let the project dry.

Paint the face first--caution children to not paint on features until the flesh tones have dried. Paint the rest of the body and clothes.

Hair can be added from a variety of materials: yarn, twine, frayed ropes. Pieces of additional fabric can also be used for cuffs, collars, and aprons. Hats can be fabricated using egg carton sections as a basic understructure.

Vocabulary

secure
proportion
features
protrude
exaggeration
model
drape
ruffle

Design Elements and Principles

Encouraging the children to utilize color in the features, hair and clothes, and texture in the clothes and hair and garments will involve them in these basic design elements and enhance the appearance of the bottle sculptures.

PAPIER-MACHE' DINOSAURS

This is an excellent way to inspire imagination in a fascinating subject area appropriate for this level. The student can internalize knowledge of the dinosaurs and create a monster of his own.

Materials

wheat paste
containers
paper-pulp egg cartons
toilet paper rolls
newspaper
newspaper strips 1" x 6"
masking tape
scrap tagboard
Elmers glue

Procedure

For easy initial preparation of the legs before class starts in the morning, have a few students dip the ends of four toilet paper rolls (use paper towel rolls for taller animals) in a small container of glue. Turn egg cartons upside down. Place the tubes to make legs, two at each end of the underside of the carton. They just fit. This eliminates the hassle of keeping the legs from falling off during construction.

After the children have decided which type of dinosaur they would like to make, have them fashion the head and tail sections using long paper tubes. Tape these to the body. A hole may be cut and these inserted in the top of the egg carton first for additional stability. Small wads of paper can be added for the head. Additional egg cartons can be used as large fin-like projections for the back or tail. The shape can be changed by adding wads of extra newspaper for a humped back or rolled newspaper for a long tail.

Paper plates cut in half make excellent wings; or if taped together as a half circle on either side of the egg carton and joined at the top, make an interesting back structure.

Be sure all sections are taped thoroughly. Caution the student not to start the papier-mache' until all the appendages are taped on.

Cover the entire animal with papier-mache', dipping each strip into the wheat paste and rubbing each strip with the paste until the paper is limp. Smooth carefully.

Let animal dry thoroughly and paint.

Vocabulary

papier-mache'

appendage

thorough

Design Elements and Principles

Dinosaurs present the possibility for the creation of interesting and imaginative form in sculpture. The irregular outlines created by the egg cartons and wadded paper structure lend interest to the surrounding negative space of the constructions. With imagined animals such as these, the opportunity for the creative and experimentive use of color is very high. Also, for the same reasons, the use of the design elements of point, line and pattern is encouraged.

SAND CASTING

This is an activity that young children enjoy very much. It is most enjoyable, of course, if the class can take a field trip to the nearest sandy beach on a river, lake or pond to do the casting.

Children will cast objects that have a flat side and a 3-dimensional or bas-relief surface. Show the children examples of sand-cast objects of various kinds such as fish, ships or birds. Use in conversation with them the terms bas-relief, cast, casting, impression, texture, and plaster of Paris. This assignment can be correlated with other subjects such as science or social studies if need be.

Materials

plaster of Paris
sand
box (perhaps)
water
wire
digging and forming objects such as spoons or tongue depressors.
plastic bucket

Procedure

To mix plaster of Paris, place 1/3 less volume of water in a plastic container than you will want in final volume of mixed plaster of Paris. Sift plaster of Paris through your fingers into the water until a small dry mound appears above the water. This amount of plaster of Paris should give about the right consistency to the mixture. Stir with your hand breaking up lumps. The plaster of Paris will set in a few minutes so do not mix before you are ready to pour, and try not to mix much more than needed.

Before mixing the plaster of Paris the children should form an impression in the sand (at beach or in box with about 2" of sand in it.) The impression can be made by pressing objects into the sand or scooping out the sand to make any object they wish. No part of the object to be cast should have parts that are very thin or narrow as plaster of Paris is not structurally strong. Avoid long necks, skinny arms, etc. Remind the students that the object will appear in reverse when cast. Pour the plaster of Paris into the mold. When the cast has started to harden, wire loops may be placed in the back to hang the object if desired. When the plaster has hardened, remove the casting and brush off the sand.

Bang the plastic bucket against a hard object to knock out the hardened plaster of Paris (one cannot remove plaster of Paris from a metal container very well.)

Vocabulary

plaster of Paris
mold
casting and cast
impression
setting

Design Elements and Principles

The finished cast object leaves a sandy or rough texture which gives it a unique and handsome appearance. This design element is an important one to teach with this lesson and with others throughout the children's art program.

DRAWING - ANIMALS

Drawing is perhaps the most basic tool in art. It is not only used as a process to create works of art but as an essential method of expressing ideas and organizing and clarifying artistic concepts. Drawing can be done with a variety of media--pen, pencil, charcoal, felt pen, brushes, chalk, conte crayon, ballpoint pen, or anything that can make a line. However, particularly suitable for second grade are soft lead pencils, felt tipped pens and ballpoint pens. It is important that students be given experiences in a variety of media throughout their school program.

The teacher should explain how the various drawing instruments can be used. That is using the side of a tool as well as the end, how to make wide lines, narrow lines, and shading by putting lines close together.

Provide youngsters with experience in drawing on various scales. They should not always work large.

Materials

soft lead pencils or felt pens

Drawing surface such as newsprint, colored construction paper, and white drawing paper.

If drawing boards are needed, use the side of a large cardboard carton or 18" x 24" Upson board 1/4" thick edged with masking tape.

Procedure

The ideal approach is a visit to a zoo or other location where there are many live animals. Even a museum where stuffed animals are displayed is excellent. Children can take along drawing boards and make their drawings on the spot. Live animals such as pets can be brought to the classroom also. If this is not possible, use pictures in books, slides, motion pictures or other visual aids. If slides or pictures are used, leave the slide projected or the pictures on display during the drawing session.

Animals are more interesting when in a characteristic pose such as eating, resting, or bathing. It is best if the children can observe the animal while they are drawing and not to draw entirely from memory.

Encourage the inclusion of as much detail such as skin texture and design, toes, tail shapes, etc. as the children are capable of. Also have the children include surrounding detail such as trees, hills, bushes. Once drawings are complete, they may be colored if the children wish. Young children use highly imaginative colors and this is good. Do not ask them to be realistic in their use of color.

Vocabulary

pose
detail
texture

Design Elements and Principles

Encourage the children to do a complete picture. The details of the animal and the environment are important to the total impression of the artwork. Many times children quit before they are finished. A little encouragement from the teacher can help when this happens.

BLOTTO BUGS

Imaginary bugs are an excellent method of making the child recognize the balance of color and symmetrical shapes within nature.

Materials

9 x 12 white drawing paper
black paint
brush
cray-pas or crayons
water color paint
water
newspaper

Procedure

Before the lesson fold paper in half lengthwise. Dabble black tempera down fold, crease again along fold. Lay out to dry.

Explain to children they will be making a blotto bug. Butterflies are good examples of symmetry. Color and shape must balance on both sides. Emphasize these aspects. Have children design bugs using craypas and water color for color emphasis. When the design is complete, utilize echo lines of varying colors to enhance the bug. Echo lines are lines painted or drawn just outside an image forming an image like the first only slightly bigger and usually in a different color. For instance, a line drawn around a butterfly image produces another butterfly slightly bigger than the original.

Vocabulary

symmetry
balance
echo lines

Design Elements and Principles

The use of symmetry in design is often an important ingredient in art and nature. Balance can be achieved by the use of color and shape. "Formal" balance is often much like symmetry in that both sides of the painting/drawing are much the same as the two sides of a butterfly.

CLAY-FOLDED POTS

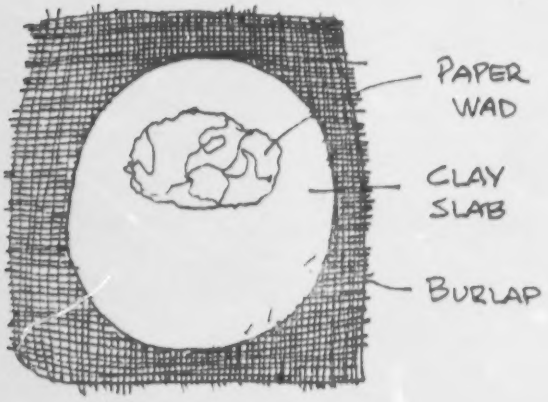
This approach of making wall or hanging pots can have amazing results with very young children. The finished pots can be used for winter bouquets or other arrangements for the child's room or the classroom.

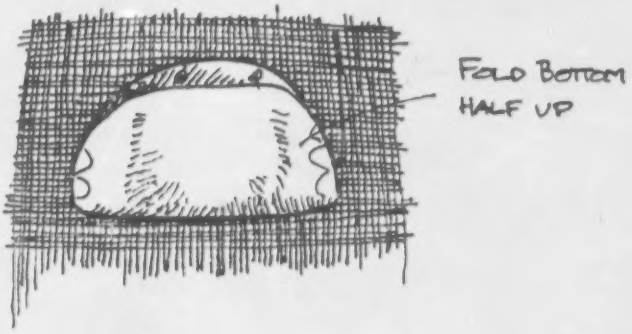
Materials

pre-mixed clay
newspaper
textured material such as burlap
plastic doilies
water and container
pencil

Procedure

Using a ball of clay about the size of a large orange, flatten it on a doilie or other textured mat to make a round slab about 1/4" thick. Wad up a piece of newspaper and place it in the upper half of the slab of clay.





Fold the lower half of the slab up over the wad of newspaper. Pinch in the sides of the pot to join them. Water of slip between the joined areas will help them stick. (Leave the paper in the pot as it will burn out in the kiln when the pot is fired.) Two holes can be punched in the back of the pot to hang on the wall or clay straps can be constructed to hang the pot from twine. The exterior of the pots may be decorated with designs made from strips or balls of clay or by impressing gadgets into the surface.

The pots should be worked on while laying flat rather than on edge as the latter will destroy the shape of the pot as the clay sags.

After pots have been fired, they may be painted with tempera* and glazed with melted paraffin or finished in some other way.

Vocabulary

texture
slab pot
glaze
paraffin

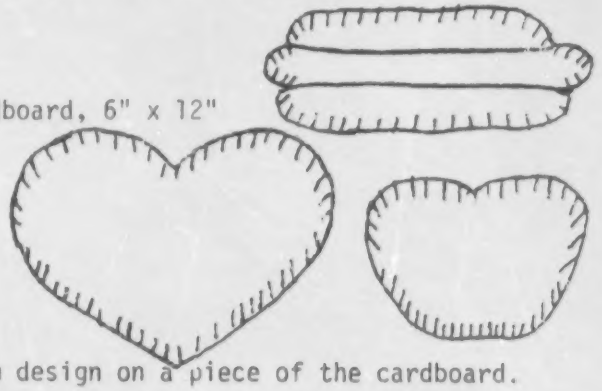
Design Elements and Principles

An important concept to get across to children is that "pots" need not be round to be a pot. They can have other, perhaps more artistic form. As long as the form of the pot applies to its purpose, either decorative or functional, it is appropriate.

*Tempera paint is often too bright for such pots and may be partially scrubbed off under running water after painting to produce a mellower tone.

WEAVING UNUSUAL FORMS

This is a simple experience in weaving on a loom that students design and make themselves. Once the project is started, they can work on it in free time.



Materials

assorted sizes of corrugated cardboard, 6" x 12"
string
odds and ends of yarn
large eyed needles or bobby pins
sharp knife or heavy scissors

Procedure

Have the children draw their loom design on a piece of the cardboard. Keep the design simple, no details or narrow projections. The designs then need to be cut out, either by the children or an adult.

Notch the top and bottom of the design, 1/4" deep and 1/4" apart. There needs to be the same number of notches on the top as on the bottom. Cut them closer together on one edge if necessary to get the same number of notches. With a round shaped design, cut the notches up the side, slanting, and almost meeting.

To warp the loom, knot the end of string, put the knot in the slot with the knot on the back; come down the front, into the first slot on the bottom, behind the cardboard, into the next slot and up the front. Keep the warping string on the front, crossing only between notches on the back.

Now weave the yarn with needles or bobby pins, either back and forth across the loom, or weave waves and curves. Watch out, don't pull the yarn too tight, especially when they come to the sides and go back across. Keep it loose, but even, on the sides. When a new color is wanted, simply start with a new one. It is best not to tie knots, but after a few rows of weaving are done, push it up tight together with fingers or a comb. This will keep all the ends together and keep them from coming out, and make a firmer weaving.

When the loom is woven full, remove the weaving from the loom simply by pulling the little string loops on the back of the cardboard over the edge to the front. The loose ends of the yarn and string at the start and finish may be tied together or glued.

Vocabulary

warp
weft
loom
weaving
free form

Design Elements and Principles

Shape or form are basic to the free-form style of weaving shown in this lesson. Encourage the children to make their own shaped loom.

Pattern is a natural result of weaving and both visual texture and surface texture are part of the artwork. Discuss these elements with the children at the conclusion of the lesson.

LESSONS

THIRD GRADE

DRAWING - STILL-LIFE

Still-life arrangements are excellent vehicles for the development of keen observation of proportion, detail, shape and space. Have the students help develop the still-life by bringing objects interesting to them to class. Avoid the visual cliche' such as ceramic mushrooms and plastic figures. Arrange the still-life in an interesting well-composed manner. Use cloth material to tie the composition together, place objects on an interesting surface such as an old table and at different levels.

Materials

found or inexpensive objects of significance to students
drawing tools: conte crayon, chalk, charcoal, felt pen or whatever
drawing surface: white drawing paper, construction paper, newsprint, or manila paper.

Procedure

Students should be seated around the still-life and as close as practical to it. Encourage them to observe the relative sizes and placement of the objects as they draw. Have them select the central object of the still-life; draw this near the center of the paper and work out from there. Detail and texture are very important aspects of still-life compositions. Also encourage the consideration by the student of positive (the object drawn) and negative (the area around the object) space and how these both add interest and composition to the drawing. Do not stress realism, rather encourage composition, design, and pattern. Colors may be added to the drawing when finished if desired.

Discuss the concepts of positive and negative space with the children. Be sure all understand this. Many objects in the still-life will have pattern and texture. These two terms should also be reviewed.

Vocabulary

positive space
negative space
pattern
texture

Design Elements and Principles

The design principle, informal balance, will also be inherent in this assignment. (Balance in the drawing that is not symmetrical)

DRAWING THE FIGURE

Throughout all grade levels teachers are encouraged to provide their classes with a number of drawing experiences. The more common classifications of drawing experiences--still-life, landscape, animal, and figure--are provided in this guide one experience at each grade level; however, each classification is appropriate in any grade level.

Figure drawing has always been basic to the study of art. During the grade school and high school levels a more appropriate term might be "person" drawing. The human form is a demanding and challenging subject and yet a very personal one. Students can become deeply involved with the subject at whatever grade level it is studied. It is a particularly good subject for the use of line, the inclusion of detail, the study of the naunces of gesture and feeling, the draping of cloth and continuously varying form. Be sure to include during the year several sessions dealing with drawing the human figure.

Materials

Drawing tool: pencil, pen, felt pen, chalk, vine charcoal

Any drawing surface: newsprint, drawing paper, or construction paper

Drawing board: cardboard box side, masonite or other

Procedure

Utilize the students of the class as models. If possible use interesting costumes or clothes to add interest. Place the model in an interesting pose and in an interesting background. Use props significant to the students such as bicycles, wagons or sporting equipment to enhance the compositional, textural and pattern possibilities. Initially have the children do several guide drawings of one or two minutes in duration to permit them to establish proportion and size relative to the paper. Suggest the students start with the head and work out the composition relative to that point. Then give the students a longer period of time to do a more detailed drawing incorporating the possibilities of utilizing the props with some compositional license. (Students should have license to rearrange items in their drawings to improve the composition if they so desire.) Stress working for the "feeling" of the pose rather than the exact realism. As the students work they should continuously look at the subject noting details, proportion, balance, and pattern.

Encourage the students to make use of the many possibilities of the drawing tool; the sides, point and different line darknesses and pressure widths. Urge the child to work freely, using the total space of the paper including the shape. Talk about positive and negative space* and how this be considered in their drawings. Encourage outside-of-class drawing as homework to reinforce classroom learning.

When the drawings have been finished color may be added to enhance the picture. For this they might use craypas, water color, crayon, or felt pen.

Vocabulary

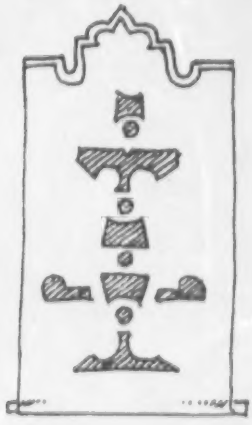
figure drawing
line quality
artistic license
contour drawing
gesture drawing
positive space
negative space

* see glossary

Design Elements and Principles

Most of the elements and principles of design can be included in the drawing of the figure but especially appropriate elements would be line and visual texture. Design principles to incorporate would be balance, form, shape and movement.

PAPER BANNERS



These banners are very decorative and can enhance a room dramatically. They are exceedingly colorful and lend a feeling of festivity.

Materials

glue

scissors

3 colors of roll color paper 4' long

scraps of assorted colored paper

Procedure

Lay sheets of roll color paper on top of one another. Fold down center and cut. Fold cut paper in half again and cut ends in interesting banner shapes. Save the negative cut away areas to glue on to the banner. Have the children fold paper scraps 3 or 4 times to cut multiples of any chosen shape or motif.

Glue cut designs onto the large paper panels. If panels are to be hung from the ceiling in the room, design both sides. Let small groups (3 or 4 children) come to the the front of the room to help glue the designs on the banners. (Attach banners temporarily to chalkboard at front of room). Bring up an extra desk to which students can bring their finished designs. Trade gluers and cutters occasionally. Finished banner will be 1/2 the width of the paper roll.

Vocabulary

banners
positive
negative
multiple
motif

Design Elements and Principles

Individual motifs can be arranged either horizontally or vertically. This lesson is excellent for awareness of color, balance and design.

PAPIER-MACHE' AIRPLANES

These airplanes are a delight "flying" about a classroom in conjunction with a transportation unit. After some background information the boys and girls are very inventive about different sizes and styles.

Materials

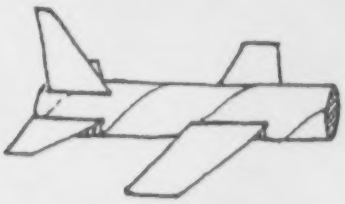
paper
paper tubes - toilet paper rolls (different lengths)
cut cardboard strips 10" x 12" x 8" for wings
1 cut small triangle
newspapers

egg cartons
papier-mache'
containers
newspaper strips 1" x 6"
masking tape
paint
brushes

Procedure

Cut a 1-1/2 inch slit in back of the paper tube for the vertical part of tail and on each side for the horizontal part of the tail. Slip in a triangular piece of tagboard vertically and the straight, short tail-piece horizontally. Tape both carefully.

If only one wing is desired slit a 1-1/2" space across the center near the nose of the plane and tape in the wing. If the plane is to be double winged tape wings diagonally and then parallel to the tube on both the top and bottom. Small supports between the wings can be fashioned from straws if desired.



Lights can be added from the small pointed egg carton sections. The larger egg carton compartments can be used for the nose or cockpits. Children will come up with many different variations on their own if materials and time are available.

Papier-mache' the entire airplane. Make sure paper is thoroughly wet on both sides with the mache' so it is limp. Remind children to smooth entire plane carefully. Let dry. Paint.

Vocabulary

intensity
camouflage
bright
dull

Design Elements and Principles

Deal with color intensity (saturation). The brightness or dullness of the color is appropriate to this lesson as some planes like to be seen, others camouflaged.

WATER COLOR AND INDIA INK

India ink can be a very exciting media. It is intriguing because of its diversity. When it is applied to a wet surface it leaks and flows across the surface. When it is applied to a dry surface it forms a sharp, hard line.

A good approach is to explore both the wet and dry applications in one lesson.

Materials

newspaper
water container
India ink
very small brush or pen
water colors
brushes
white 12" x 18" construction paper

Procedure - Dry India Ink Method

India ink is water proof once it dries. Therefore, it has some intriguing painting implications. One is that the student can draw pictures with the ink, let the ink dry, then apply water colors without having the lines run or smear.

This method of water color painting is easy for students to control. Make sure as the students apply the water color they leave some white areas. Often the painting is more interesting if the color flows over the India ink or falls short of the outlined picture.

Procedure - Wet Water Color and India Ink

As the students are waiting for their first India ink drawing to dry a second painting can be started. This method is far more free.

The first try should be experimental.

First give the entire paper a water bath; that is brushing with clear water quickly so there is a light water covering on the paper.

Put a brush full of water in each paint so they will be softened for more brilliant hues.

As brush loads of color and India ink are dropped on the wet paper the lines tend to explode into the surrounding space in tiny intricate rays. The shapes and forms may be suggestive of outer space or in an imaginary land. As the painting dries continue adding details and refine the suggested ideas.

Vocabulary

experimental

flow

hue

intensity

Design Elements and Principles

Stress composition. A group of the same sized spots of paint and India ink dropped upon a paper does not necessarily make a good painting even if they flow out in interesting forms. Encourage the children to try to compose an interesting picture including variety, balance, form and the other design principles.

MULTI MEDIA TISSUE PAPER COLLAGE

Art tissue is particularly appropriate for the decoration of surfaces in collage work. The use of transparent tissue lends itself beautifully to color composition study by creating new hues through the overlaying of different colors of tissue.

Materials

Step One

tissue paper
scissors
construction paper as base
starch or elmers glue (diluted 1 part glue to 1 part water)
large paint brushes
containers
newspaper
iron

Step Two

small paint brushes
India ink
newspaper

Procedure

Step One

Cover paper with solution of elmers glue and water. Instruct children to glue down the background first, preferably using largest size paper and lightest hues. Cut or tear the remainder of the tissue paper into a variety of sizes and shapes. Emphasize that using all one size of paper tends to lead to a monotonous end product. Discuss the importance of distributing different sizes and shapes and different colors to make a more interesting design. Note that larger shapes can be obtained by grouping small shapes of the same color or hue.

Make sure children understand that making a design is not just tossing pieces of paper mindlessly onto one another. Usually the same size and shapes do not make for the most pleasing design. Encourage children to develop different sizes and shapes by the overlay process.

Each layer of tissue paper needs a new application of the glue. Upon completion give the entire paper another coat of glue.

Let pictures dry. Press on reverse side with iron. (Otherwise the picture will tend to curl up on the corners.)

Step Two

Have children examine the finished collage to try to identify shapes which might suggest flowers, animals or other common objects or imaginary themes.

Refine and develop these ideas by creating a line picture with the felt pens or India ink upon the collage surface.

Vocabulary

hue
warm colors
cool colors
texture
composition
balance
collage
overlay

Design Elements and Principles

The study of colors and how they are created is most appropriate for this lesson. Tissue paper, when dampened with diluted white glue or liquid starch is translucent. One color when overlaying another will create a new color. The children can see directly how colors combine to form new ones. Equally important is the understanding of what colors seem to go together, how warm colors come forward and cool colors recede.

The art program is the only part of the Education program wholly dedicated to seeing creatively, making imaginative choices, and expressing the results in meaningful forms.

CLAY FORM POTS

This approach to pot making stresses the possibilities for surface decoration through the use of line formed by clay coils. Students will use bowls in which they will place coils of clay in decorative designs. The fact that they already have a form in which to work frees them to concentrate on the design element of line in their work.

Materials

clay

newspapers or other surface upon which to work

water and container

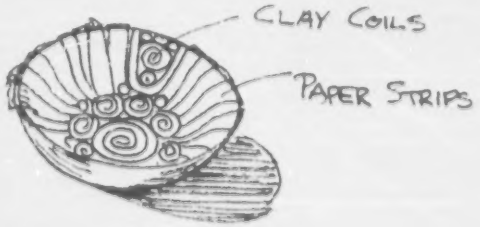
pencil or other scoring instrument

bowl, cottage cheese carton, or other plastic food container

Procedure

Discuss with students the decorative possibilities of this lesson. Draw examples of coil designs on board. Show example of pots made by this method. Be sure students know how to make coils of clay by rolling out on a surface and how these should be joined by scoring with slip.

First line the bowl with wet strips of paper towel cut about 1" wide and long enough to go from the center of the bottom of the bowl up the side and about 1" over the lip. The bottom of the pot may be either a slab or coils of clay. To this join pre-made coil designs such as spirals, circles or wriggley shapes. Lightly press these coil-formed designs against the side of the bowl and join all clay designs by scoring and with slip. If the coil designs are pressed too firmly against the sides and bottom of the bowl the design will be pressed out and lost.



Let the finished formed pots dry for about one day, then remove from bowls. When the pots have been fired they may be painted with tempera and coated with melted paraffin or finished in some other suitable manner. Students should wash hands, bowls, and all utensils in a large bucket of water before a final rinse in sink. Remember, sink drains and clay are natural enemies!

Vocabulary

Scoring
Slip
Brisque fire

Design Elements and Principles

Line is the obvious design element to be stressed in this lesson and can be used here in a purely decorative sense. However, since many of the line designs used in this lesson are the same ones used in student paintings and drawings, try to establish the universal quality of line by discussing this with the students.

SANDPAPER PRINTS

Sandpaper printing is a highly colorful and textural monoprint process. It easily and quickly yields beautiful and colorful results that have an abstract flavor. The resulting print is very close to the pointillistic style of Serat and lends itself well to an art appreciation lesson involving Serat and his contemporaries.

Materials

used sandpaper
color crayons
white drawing paper
hand iron

Procedure

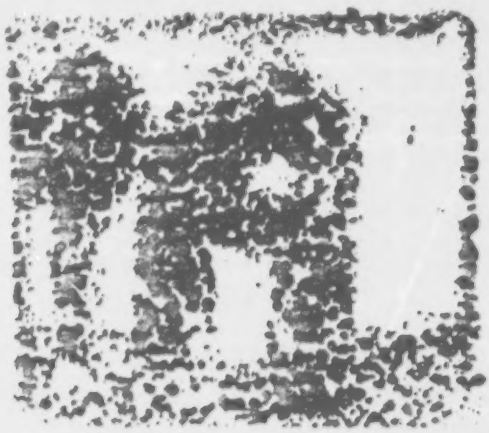
The high school shop or a local cabinet shop may be a good source for used sandpaper. Each child is given a piece or two upon which he/she will draw a picture with color crayons. Encourage the students to use heavy pressure while doing their coloring. Bright and contrasting

colors work best. Flowers and rainbows are good subject matter for this assignment. Some of the sandpaper surface may be left uncolored.

After the student has completed the picture, place a piece of white drawing paper on the colored surface and iron with a hand iron. A setting of about 150^{o} should suffice. (You will have to do this for the children.) As you iron, the image will appear through the back of the paper. After a little practice you will be able to see how long to iron the paper in order to get the best print.

Remind the children that the print will be backward as is the case with most printing processes.

If another print is to be made of the same picture the child must recolor the sandpaper.



Vocabulary

texture
monoprint
pointillism

Design Elements and Principles

The design element of "texture" is the natural result of this process. The used, printed sandpaper is an excellent example of physical texture, and the printed image illustrates very well visual texture.

SCULPTURING WITH FLOUR DOUGH

An inexpensive and very satisfying sculpting medium for children is flour-salt dough. The advantage to this mixture over clay is that it need not be fired to the high temperatures required for clay and even

the dried, unbaked sculpture is fairly durable. The disadvantage is that it does not have the strength of fired clay nor the application to the arts in the long run.

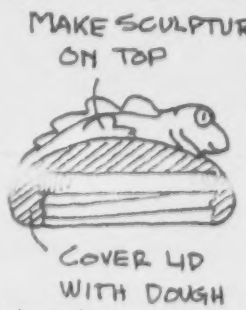
Materials

flour (white)
water
salt
mixing bowl
knives
gadgets
garlic press for making fine strings of dough
newspaper

Procedure

There are a number of recipes for flour dough but a good standard one is: 1 part salt, 2 parts flour and enough water to make the mixture about the consistency of clay. (You have too much water if the mixture is sticky.) Mix the flour and salt together then add water.

A good first lesson with the flour-dough medium is to make sculptural metal jar lids.* First, completely cover the lid with dough. Then sculpt some animal scene on the top of the lid. Ideas for this might be fish, frogs, birds, mammals. Add lots of texture and environment to the scene such as leaves, designs and others.



The completed lid sculpture should be baked in an oven at 350^{0} for about 30 minutes per 1/4" thickness of the dough. (It has baked long enough when just starting to turn brown on high points.) If one wishes the finished lid sculpture may be painted, but this is not necessary as the baked dough is quite handsome by itself. A gloss varnish might also be painted over the finished sculpture if desired.

*Plastic will melt when baked.

Vocabulary

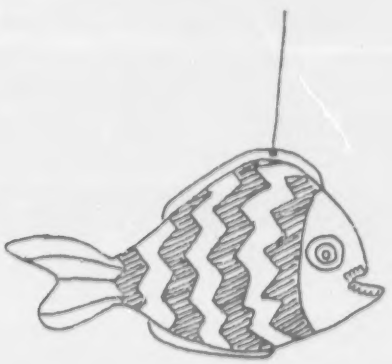
flour-salt dough
gloss finish
bas relief

Design Elements and Principles

Since this animal scene is perched atop a circular mound, the design principle of balance is appropriate to stress. Point out that the animal would not want to be out of balance to one side or another since it might have the feeling it was falling off.

STUFFED PAPER OBJECTS

This happy approach to sculpture can provide a room full of delightful, colorful objects that may be hung as mobiles or placed about the room in interesting locations. These stuffed objects may be very large, human size or larger, or relatively small. The process is essentially one of drawing, painting and cutting out a two-sided object such as a fish, stuffing it with paper and stapling around the edge.



Materials

newspapers
tempera
brushes
staples
large sheets of colored paper such as rolled colored paper

Procedure

As with most art projects, at any grade level it is best to limit the subject matter of this lesson to something that either relates to another subject being studied such as American Indians or some intrinsically artistic objects such as fish, insects, animals and others. (Children can be given too much freedom in a lesson which in turn becomes a tremendous obstacle to ideas.)

Using fish as an example, first show slides or pictures of fish of varying kinds and discuss these with the children. As questions such as: Where are the eyes in relation to the mouth? What is the shape of the tail? What patterns are on its body? Have the children create their own imaginary fish using some of the best ideas from the motivational session. These fish may be drawn small first, then copies on a large (perhaps 3' x 4') sheet of colored roll paper. Cut out one side and trace the outer side from it. On newspapers, the fish should be painted with tempera so that both sides are alike. Then the fish are stapled about two thirds of the way around. The fish is then stuffed with wadded up newspaper and stapled around the rest of the way. The stuffed painted fish can be hung from the ceiling or displayed in the halls.

Vocabulary

pattern

mass (the mass created by stuffing a two-dimensional object)

Design Elements and Principles

Since most fish have natural pattern this design element is a natural for this lesson. Form is also important in terms of a fish's activities and design.

CLAY COIL POTS

This is a particularly good lesson to integrate with a social studies unit on Indians since the coil pot method is common in Indian pottery. If you choose to integrate this lesson with Indian pottery discuss with the students the types of pottery and the designs characteristic of Indian work.

Materials

clay

newspaper

water and container

pencil or other scoring instrument

Procedure

Show students how to build rings from firm round coils about the

size of one's finger. Make a round ball to be used as the base and flatten it to about 1/2" in thickness. The coils are then placed on one another to give the pot height. It is very important that the coils are scored and joined with slip* or they will fall apart once the clay is dry. Students may build a pot leaving the coils show as they are placed together or they may smooth the surfaces out as they work. A variation on the above that students seem to enjoy is to make the bottom half of the pot smooth and the rest with the coils showing.

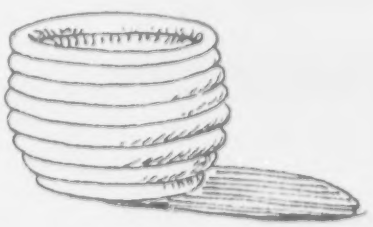
Let pots dry for about a week then bisque fire. The bisqued pots may then be painted with tempera and dipped in melted paraffin, glazed, and painted with floor wax or finished in some other manner.

Vocabulary

form
function
scoring
slip
bisque fire

Design Element and Principles

The design element of form should be related to the function of the pot. If studying Indian pottery it is easy to show students how the form of the pots produced by Indians relate to the use of the pot. But do not overlook the fact the pots also had great artistic beauty both in form and decoration. Encourage students to work for the same purpose.



*Slip is a mixture of clay and water about the consistency of whipping cream.

PAPIER-MACHE' ANIMALS

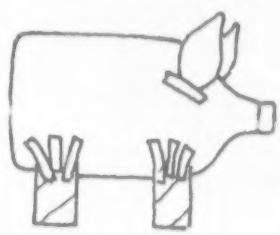
Third grade children usually possess the necessary technical and manipulative skills that papier-mache' demands. Animals of all sorts and description can be manufactured using an array of disposable items for the armature.

Materials

containers
newspapers
newspaper strips 1" x 6"
tagboard
masking tape
toilet paper rolls, towel rolls
plastic bottle
cottage cheese cartons
oatmeal cartons
purex bottles
old plastic paint bottles

Procedure

The type of animal to be constructed will determine the armature shape for the body, for instance, purex bottles make great elephants or pigs.



PIG START

Toilet paper roll legs can be added by using masking tape. Newspaper rolled the long way can also be used. In this case tape each end. Drape across the back of the animal. Tape along the sides. Additional newspaper may need to be added to fill in the spaces along the back.

Cut tabs along the bottom of a toilet paper roll for the neck. Tape to the body. Wad paper to shape the animal's head. Tape to neck. Cut cardboard ears and tape to head. Paws, tails, trunks, can also be added to the animal by rolling or wadding paper. Always tape the wad or roll securely before fastening it to the animals.

(Make sure the children's tape is pressed firmly to each surface as it's very disappointing to lose extremities during the papier mache' process.)

When the armature is assembled begin papier-machéing the animals. Dip fingers in papier-mache' and slip paper strip throught the mache' fingers til paper is wet on both sides and limp. If it is too wet the animal may collapse. If it is not wet enough the paper won't stick. Work for a uniform covering and lay on strips in all different directions thereby tying them together.

The entire animal should be carefully covered. Only one good coat is necessary. Let dry. Paint.

Vocabulary

echo lines (lines that follow the shape of the animal)

armature

contour

Design Elements and Principles

Usually it is advisable to paint the animal with one coat of a base color and let it dry. At a later period look carefully at the lines of the animal. Ha the child think in terms of movement of these lines, stripes that enhance the contour of the animal's body are often very effective. Think in terms of using line in an unusual but interesting fashion. Often the use of echo lines will be appealing. A combination of stripes and polka dots is also effective.

CARDBOARD OR INNER TUBE PRINT

This printing process is particularly good for working with bold shapes since neither cardboard nor inner tubes can effectively be cut into detailed pictures.

Materials

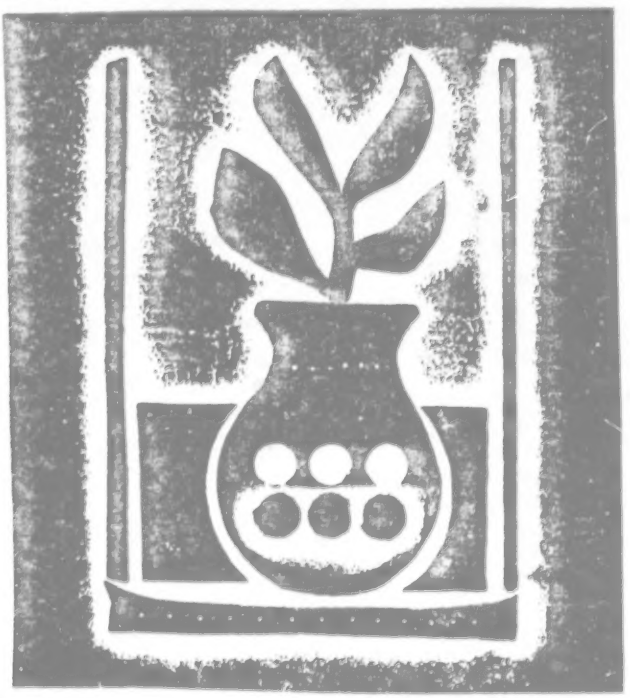
cardboard (preferably smooth) or inner tube
white glue
soft rubber brayer
water based printing ink or a formula ink
newspaper
white or colored paper
ink slab (flat surface to roll ink onto), glass, floor tile or other.

Procedure

Students will sketch shapes on an area the size of printing surface. Then transfer images to cardboard or inner tube and cut out. (Remind students that images will print in reverse.) Glue the cut out forms to a cardboard backing in the desired composition.

The ink should be rolled with the brayer until it is spread smoothly on the inking slab. Then the student will roll the inked brayer over the glued design until the ink is very evenly distributed.

A piece of paper, white or colored, should then be placed on the inked picture and pressed with the fingers until complete contact is made with the raised image only. *See recipes p. 223 (Peel the paper back on a corner to see if the image has transfered adequately.) If so, remove the printed paper and repeat the process for additional prints.



Vocabulary

bold shapes
positive space
negative space

Design Elements and Principles

This is a particularly good lesson with which to teach the design elements of shape, form, and space. Since the materials of cardboard and inner tube rubber are practially impossible to cut in detail, large shapes are the inevitable result of the limitations of these media. Talk to the students about how shapes can be bold in nature, how they represent something that in nature is more detailed. Also mention the concept of negative space (the shape of the space around the outside of the objects in the print). Explain that negative space is just as important as positive space in a composition.

CRAYON - WATER COLOR RESIST

Often times the use of more than one media in an art lesson enhances the appearance of the end product. For that matter, the majority of art lessons at the elementary level will utilize more than one media. This lesson may be utilized from grades one through five very effectively. Children handle the media involved with differing degrees of skill, of course.

As with all lessons, there should be a motivation time at the beginning. The subject of the resist lesson can be determined by the teacher; but subjects such as bicycles, airplanes, space fantasy, animals, birds, flower fields, insect worlds, and others are good for this level.

Materials

water colors
crayons
newspapers
brushes, large size
white chalk
water in container
white or light colored construction or drawing paper

Procedure

Spread newspapers on desks. Have children initially draw picture with white chalk on paper. Then using heavy pressure have children color in areas they wish colored. Remind the students that those areas not colored in will be the color of the water color wash applied after the picture is colored with crayon, and that they should plan the picture with this in mind. A good color for the water color wash is black, as this will make for a striking finished picture. Other colors may be used such as blue wash for underwater scenes. Have the children color crayon up to but not over the chalk drawing.

Once pictures have been colored with crayon the children will wash over the entire picture edge-to-edge with wet water color using large brushes supplied. The crayon will resist the water color wash providing a brilliantly colored picture with a black background.

Vocabulary

resist
wash
pattern
contrast

Design Elements and Principles

Since this lesson results in brilliant, contrasting pictures, stress the design element of color intensity and the design principle of variety. At the beginning, during, and ending of lesson use these terms in the discussion of the student's work.

Other suggested resist experiences:

1. The second grade was encouraged to introduce the ditto resist technique but this may be repeated in the third grade if desired, perhaps on a larger scale and with more stress on the design elements and principles suggested for the crayon-water color resist.
2. Cray-pas (oil-based chalk) also works as a resist of water color.
3. In place of water color one might use diluted India ink for the wash.

ANTIQUE PAINTING

This process deals with a soft textural surface and gives an aged or antiqued quality. Children can discuss the enhancement of petinas on old or exposed items. Often these petinas lend a look of quality and tone down the harshness of bright colors. Have children find samples of petina to share with peers or take an observation walk.

Materials

black tempera (not too thick)
brush
white construction paper 9 x 12
crayons
irons

Procedure

Pictures should first be drawn with white chalk. Then colored with crayon up to but not over the white lines. Choose very bright and light colors of crayons with which to work. Color in the designed picture of the child's choice. Caution the children not to use black. If the finished product needs to be outlined leave about 1/4" space as an outline around motifs. Color very, very hard. Paint over entire crayon work with black tempera paint. Let dry.

Turn upside down, press with very hot iron until you see the crayon melting through the paper. Turn over and use the paper toweling to rub the black paint off the colored areas. Result will be a soft velveteen look.

Vocabulary

petina
vibrant
antique
enhance
surface
quality

Design Elements and Principles

This lesson deals with the observation and manipulation of color,

especially color that has aged or weathered. How color is changed in nature in terms of value and intensity and how the artist attempts to gain the same control and ability in his/her work are objectives of this lesson.

The work of art is the product of human thinking, human feeling, and human spirit.

LESSONS

FOURTH GRADE

100

WATER COLOR

The transparent, flowing and merging qualities of water color lends itself well to atmospheric effects, merged outlines, softness, graded values and crisp spontanaiety. Through this medium one may interpret his/her experience, express personal feelings and thoughts, and come to appreciate paintings and designs produced by professional artists.

Materials

brushes: Preferably soft brushes of varying sizes, although flat ended, stiff brushes may produce different effects.

paper: Any kind of paper may be used. A heavy weight is recommended. For high quality work, water color paper is suggested.

water colors: These come in cakes and tubes. The cakes may be purchased in sets of seven or eight colors; refills may be purchased separately. Avoid sets which include brushes for the brushes are generally of poor quality.

Procedure

There are a variety of ways to teach water colors. A few basic techniques are described here that will provide the students with skills on which to explore their own creative potential.

Wet Paper Method. This technique lends itself to a softness of structure. Before the actual painting, the student should have a conceptual idea of the composition. Narrowing the subject matter to a specific, such as a landscape or still life, aides the students in exploring this technique. A preliminary drawing done in light pencil is suggested for water colors may become murky if they are worked over continuously. Wet the paper, blotting away excess water. Load the brush with the desired color and begin by painting in general background areas leaving the detail work until last. Encourage the students to observe the lightest to the darkest values and their placement in the composition. Leaving areas of white gives the water color sparkle and freshness. The paint may be applied with a wash of the color or the wet paper may be tilted to control the flow of color or color may be blotted. When the desired background is achieved, begin to add the details.

Water Color Resist. This technique may be used employing rubber cement, cray-pas or crayons. A crayon drawing may be brushed over with watercolors to achieve a depth of quality effect to crayon drawings.

Rubber cement may be applied to various areas of a composition and allowed to dry. Water colors are then sponged or brushed on. When the paint is dry, the rubber cement may be removed exposing the paper in those places. This can be repeated on the same design if desired.

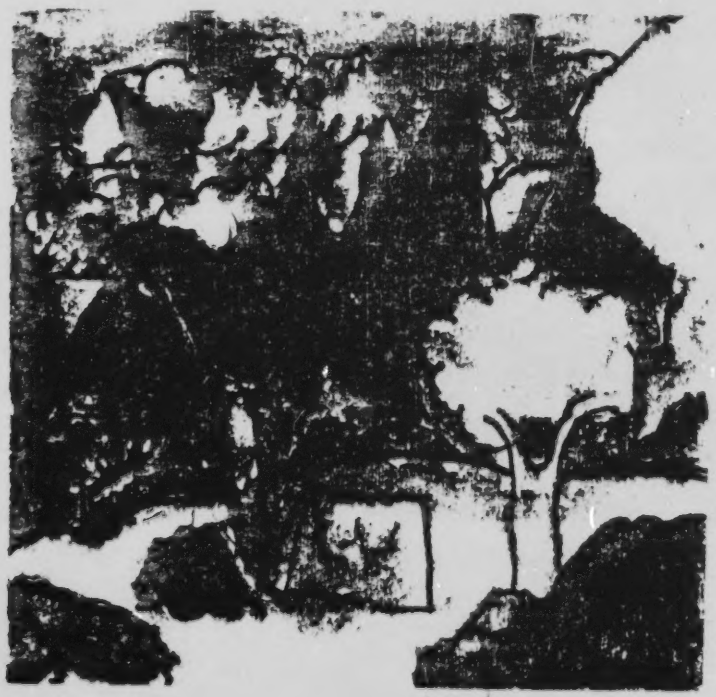
Dry Brush Technique. The student begins with a dry piece of paper. The brush is moistened but not loaded with either paint or water. When the brush is drawn over the paper, brush tracks are left creating a beautiful linear quality. The wet technique may be employed first utilizing the color wash and allowed to dry. The dry brush technique may be utilized after that.

Vocabulary

wash
wet method
dry brush
water color resist
color values
color perspective

Design Elements and Principles

This is an excellent media to teach the design element of color. Hue, intensity and value are very important concepts in water color. Of course, composition and arrangement are always essential and should be reviewed here also.



PRINTMAKING WITH PARAFFIN

Wax printing, like styrofoam printing is an intaglio process--that is the lines or areas to be printed are impressed or sunken into the printing block's surface; and therefore, will appear the color of the printing paper since they receive no ink. When the ink is rolled onto the wax block only, the background receives the ink, not the impressed lines.

A wax block is easy to work with since practically any object will make an impression on it. Students can use pencils, nails, knives, or sticks. The block will print all marks on its surface so very delicate work can be done.

To prepare a wax block, melt wax and pour it into a small box or box lid about 1/2" thick. Let it cool and remove the box or lid. Scrape the top of the wax block with a metal ruler or other straight, sharp object.

Materials

paraffin, candles
tools such as nails, pencils, pins
shallow box
brayer
water-based ink
hot plate and pans
paper

Procedure

Before starting this printing lesson, discuss the intaglio printing process and the purposes of printmaking generally. Remind the students that they have done the same process earlier but with styrofoam rather than wax. Stress that this is a more delicate process and that they should take advantage of this characteristic in their printmaking.

Have the students prepare their wax blocks and have them design on a separate sheet of paper the same size as the block, the image that they wish to print. Or, they may work directly on the wax block. (The subject of this lesson may go very well with special occasions such as Christmas or Valentine's Day, if the teacher wishes, but he/she need not necessarily correlate this lesson with something else to justify printmaking.) Remind the students that the final print will be the reverse of what they design.

When the block has been prepared, ink is brayered over the surface of the block and the printing paper pressed firmly against the surface of the block. Have students make a "run" of several prints.

Vocabulary

block printing
intaglio
visual texture
line width
run

Design Elements and Principles

Since very delicate and detailed work can be done with this process, visual texture is a good element to emphasize. Texture can be created by pricking the surface of the block many times with a pin or by short crosses, or notches. Line width can vary more greatly with this process than with the styrofoam process. Therefore, this variation of line can be stressed also.

TISSUE PAPER OVERLAY - REALISTIC SCENE

This is an excellent lesson with which to create a feeling of depth and transparency and subtle color change. The process of overlaying translucent color tissue provides a most direct experience in combining colors.

Materials

tissue paper
scissors
construction paper, assorted colors
Elmers glue diluted 1/2 glue/1/2 water
large paint brushes
containers
newspaper

Procedure

Coat construction paper with diluted white glue solution. Make children aware they will need to think in the reverse to their usual working procedure; that is, background should be done first and the foreground last.

The sky and ground should be applied across the entire paper. Recoat with a layer of glue. Add clouds, mountains, lakes or streams being conscientious about overlay techniques and the importance of subtle color variation.

Apply trees, flowers, butterflies, buildings, animals, people, or whatever the chosen foreground motif is, last over freshly glue coated surface. Cover the final product with coating of glue.

Be sure to thoroughly clean brushes; if the white glue dries in the brushes, they will be ruined.

Let pictures dry. Press on reverse side with an iron to remove curl.

Details, texture, patterns, and outlines may be added with felt pen or other medium if desired.

Vocabulary

subtle
intensity
transparency
depth
background
foreground

Design Elements and Principles

The design elements of color and form are natural for this lesson. Colors combine to form others as the translucent sheets of tissue are overlayed. The shape of mountains, lakes, land forms, and sky are very important to the artistic merit of the final picture.

> *Art is the essence of that which is human; it is the embodiment of the human experience.....*

CLAY-STUFFED ANIMALS

Using an armature of some sort is essential for larger animals if they are to be fired. (Very thick forms will very probably break in the kiln.) An added advantage to using an armature is that the fired animals are hollow and can easily be transformed into weed pots or banks.

Materials

newspaper
pencil
water
clay

Procedure

Spread newspapers on the tables. Wedge the clay. Form the clay into a large ball and by pressing outward with the palms of the hands,

begin to flatten the clay into a pancake shape. The clay can be turned periodically to get a uniform smooth flat piece. It should remain about the thickness of one's little finger.

Place a tightly wadded piece of newspaper in the center. Fold the flattened clay around the wad of paper. It can be rolled gently on the desk to get a smooth surface. Excess clay at either end can be pinched away.

This forms the basic body of the animal, and needs little modification for pigs, rhinos and hippos.

Turn the animals over and make the legs. Smooth the clay from the body to the leg so the seams are no longer visable.

Ears, noses, heads, and tails can then be added in a like fashion. If the added head is over an inch thick it should also be hollowed. A hole in the head should line up with a hole placed in the animal's body. (This provides a vent for expanding air during firing.) Join thoroughly.

Upon completion of the basic shape, the animal can be smoothed with a small amount of water. Make a hole in the bottom of the animal's tummy so as the paper burns out, the animal will not crack. It it is to be used for a bank or pot, make sure the children cut through the top layer so the paper shows.

Let dry at least one week before firing. After firing, the animals can then be painted and dipped in melted paraffin.

Vocabulary

texture
hollow
kiln
fire
seams
invisible

Design Elements and Principles

The surface can be textured by using a pencil or embossing objects. Additional visual texturing can also be achieved during the painting process.

3D TAGBOARD MASKS - Northwest Indian or African

These masks are as effective as the traditional papier-mache' mask but are somewhat easier to make; however, they will take two or three lesson periods. Because the lesson begins with a structured symmetry and design, the masks look more in keeping with various primitive cultures.

Materials

Step I

1 piece of white paper 18" x 24" (construction)
1 piece tagboard 18" x 24"
scissors
pencil
masking tape

Step II

paint
newspaper
stapler
yarn
feathers
rope
twine
brushes
feathers, leather (optional)

Step III

varnish
newspaper
brushes
paint remover

Procedure

Fold the 18" x 24" construction paper in half. Design mask pattern using the full size of the paper. (Only 1/2 the mask will be drawn.) Nose and mouth fall on the center line.

Cut outside edges of mask and cut out the interior designs. Unfold mask and lay it over the 18" x 24" tagboard.

Use small amounts of tape at top and bottom to keep the mask from moving as you trace it onto the tagboard. On the tagboard mask, only the outside edges will be cut out. All the interior design areas will be painted.

Carefully paint in the mask. Do not paint one wet area right up to another as the paint will smear and run together. The masks are usually improved with a bold black outline.

Cut around the outside of the mask. Then make slits about 1 and 1/2 inches deep on both sides of the chin section and forehead. Try to incorporate the cut-line to a related design area. Slightly fold over and staple. This gives the mask a 3-dimensional effect.

Punch holes along top and/or bottom and add shredded twine or feathers.

Varnish.

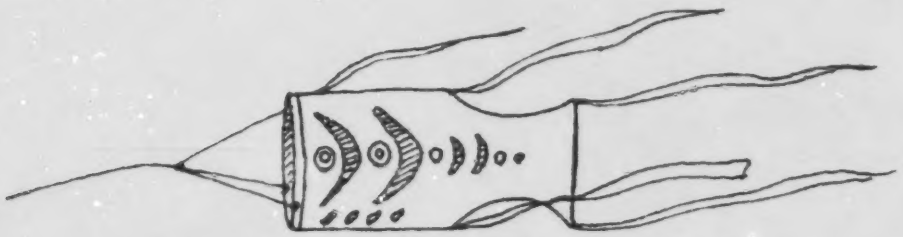
Vocabulary

symmetry
primitive
fetish
design
pattern
texture

Design Elements and Principles

Symmetry was an important concept in most primitive cultures. The design elements usually were simple, often geometrical; a concept the teacher needs to stress. (American children so often associate masks with Halloween.) Emphasize the use of line and pattern.

JAPANESE FISH KITES



This is an exciting project for the students as these kites are beautiful and will fly on the same principle as a wind sock. They are very effective to make when studying the Japenese culture. Also they are just great to make for a windy day. A kite contest can lend much enthusiasm for this project.

Materials

one 2-foot piece of willow or wire
scissors
glue

masking tape
2 matching pieces 18" x 30" tissue paper
strips of crepe paper
scraps of tissue paper
string

Procedure

Lay the 2 pieces of tissue paper one on top of the other. Fold in half. Cut partial circular shape out of the lower half on the open side. (See picture.)

Lay fish shapes out mouth to mouth. Cut designs from tissue paper scraps, glue to fish. Decorate both sides in oriental motif.

Wrap willow or wire into a circle about 12 inches in diameter. Secure circle with masking tape. Glue along inside edge of fish head section of tissue sides. Fold open end of head section over circle one inch and glue. Repeat other side. They should overlap about an inch. Glue down both sides that overlap. One child will need to hold the fish at this point while the other glues.

Now lay the fish flat. Flip the tail section of the top tissue side up over the head portion. Place glue around the edge of the bottom tissue side leaving about a 4-inch hole in the center of the tail for the wind to circulate through. Fold the tail section back down. It should be glued securely. Make sure bead of glue is continuous except for the intended hold in the middle tail so the wind can funnel through.

Glue on crepe paper streamers.

Tie string from one side of the mouth to the other. Do this crosswise to form an X for greater stability. Then attach kite flying string from the center. About 10 feet is usually sufficient.

Vocabulary

streamers
oriental
simplification
symbol

Design Elements and Principles

Simplicity is the essence of oriental motifs plus the use of bold and exciting colors. Both sides of the fish should be symmetrical for unity.

BURLAP WEAVINGS

This weaving idea combines pulling the weft threads to create a beautiful hanging. Burlap is now available in rainbow colors and is easy to find in local fabric stores.

Materials

1 and 1/2 feet x 2 feet burlap
yarn
darning needles
beads (optional)
dowel or small straight branch

Procedure

Sew along top of burlap. Begin by pulling sections of the burlap warp and weft threads. Snip the warp threads to be pulled. Sizeable open areas are created, giving an airy feeling to the hangings.

Try to pull the threads so the squares or rectangles vary in size. For interest, some areas may be cut away for open spaces. Some of the areas can be rewoven using colorful yarns for a textural change.

On the bottom, many weft threads can be removed to make long fringed ends. For additional interest, some threads can be knotted and/or strung with beads.

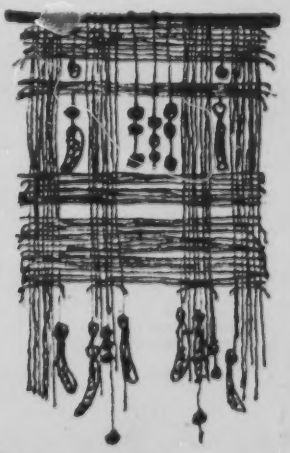
Vocabulary

texture
raveling
warp
weft

Design Elements and Principles

Work with balance and geometric shapes. Large areas may be counter balanced by several small areas.

Texture and the creation of pattern is important in the reweaving process.



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LANDSCAPE DRAWING

Field trips are always a happy experience for youngsters in school. There are many possible sites to take a class for a landscape drawing lesson. These range from commercial areas to farms, houses, lakes, and others. The medium with which the children can draw can be any of the typical drawing mediums which include felt pens, pencil, ink, brushes, water color, charcoal, crayon, ballpoint pens, and chalk.

Materials

drawing medium

drawing paper--white, newsprint, construction paper, others.

portable backing for drawing paper such as cardboard, masonite, plywood.

coloring medium: cray-pas, water color, crayon.

spray fixative for charcoal, chalk, pencil

Procedure

Choose a site that is visually stimulating to you and the children. Such a site should contain a variety of shapes, details, and colors. Old houses, commercial areas, industrial sites, work well. Discuss the purpose of such a drawing trip. That is--to create an artwork. Therefore the students need not photographically reproduce the scene; rather, they may utilize artistic license, and rearrange things to suit their purpose or add or subtract images if they choose. Of primary concern is to communicate a feeling and impression of the scene. To do this the drawing need not possess extreme realism. Tell the children that they should be concerned but not overly so with this dimension of drawing a landscape.

Contour drawing--an approach in which students draw only the outline of the subjects and their details--is a good method to work with on some landscapes. Encourage the student to concentrate on the detail of the subject while drawing and lift the pencil from the paper only when necessary.

Success with composition can be achieved by suggesting that the students start their drawings near the center of the paper and work out from there. Urge them to pay attention to balance, composition, and positive and negative space.

Once the drawings are complete, they may be colored. Color used may be water color, cray-pas, chalk, art tissue or whatever they choose.

Vocabulary

negative space
positive space
composition
artistic license
contour drawing
shading
cross hatching

Design Elements and Principles

Since landscapes can be very rich, complete works of art, most of the design elements and principles are involved. Perhaps it is best to concentrate on only two or three with the students in any one lesson though. Balance, composition, variation in size, positive and negative space are good ones to work with in this lesson. Other elements and principles can be studied in other drawing lessons.

CLAY-SLAB POTS

Perhaps the most common approach to making pottery and clay constructions other than the wheel is using the slab method. In fact, the most innovative work in pottery at this time relies heavily on slab construction. Basically, the technique is easy but like all clay work, practice is required to produce really nice things.

Materials

clay
water and container
slip
newspapers
pencil or toothbrush

coarse fabric for texture
gadgets for designs
paraffin
paint--tempera or acrylic

Procedure

Slabs may be produced by either pounding out the clay on a flat surface of newspapers, upside down oilcloth, fabric, or rolled out with a rolling pin using two dowels, one on each end, as thickness gauges. The former method lends a spontaneous appearance to the finished work, the latter a more controlled. Both are artistically pleasing.

A roundish pot using pounded slabs may be made as follows and variations on it are unlimited:

First, make a flat base the general shape of a pot. Score the edge of the base. Form a slab of clay straight on one edge but curved on the others. Score the inner 1/2" of the straight edge and join it to the base with slip. Make another slab with a straight base edge and overlap it, joining it onto the slab already placed on the pot. Continue this approach until the pot is the desired height. (One need not make a straight edge on slabs added after the base.) Be sure to press overlapping slabs together firmly.

Once the pot has been constructed it may be decorated by impressing pattern and design on the surface with gadgets. For instance, running a gear cog around the edge of a slab will make a nice row of points. Impressing a keyhole a number of times will produce an interesting pattern--the possibilites are practically unlimited. After the pot has been constructed, let it dry and fire.

Glazing may be done by first painting with acrylic or tempera paint and then dipping in hot paraffin, using floor wax, or by actually glazing by using ceramic glazes.

Vocabulary

chroma
value
active
slab pots
slip
bisque firing
green ware
scoring
informal pot

Design Elements and Principles

If the pots are to be colored, either by glaze or by paint, the relationship of value and intensity to form is one that might be studied in this lesson. Dark values tend to reduce the appearance of size on structures such as these and light values tend to increase the appearance of size. Intense colors add to the vigor of informal pots and greyed colors make them more somber.

Line may be added in decorating and increase the activity of these pot forms that are already quite active.

CRAYON BATIK

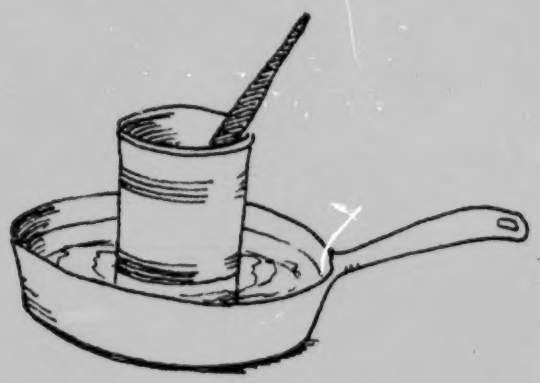
One of the most straight-forward approaches to batik is the crayon batik process. The images produced are startlingly beautiful, yet the process is one that can be nicely handled by third graders and above. This process, however, is one that best suits a small group since it requires the use of melted crayon and hot plate.

Materials

dye
crayons
tin cans
old paint brushes
cotton cloth
hot plate
large skillet or shallow pan
paraffin
newspapers
large pan for dye bath
hand iron

Procedure

One may use new color crayons for this process. However, it is an excellent way to use up any collection of old crayon pieces. Melt the crayons in tin cans--one color in each can. Be sure to heat the cans containing the crayons in a skillet of water to avoid the possibility of fire.



The batik may be painted on old bed sheets or other cotton material. Design the picture and plan the colors to be used. The various colors of melted crayon are painted directly on the cloth and allowed to cool. For less brilliant colors, the melted crayons may be diluted with paraffin. The total area of the cloth should not be painted as the painted cloth will be placed in a cool dye bath. The "negative space" of the batik will be the color of the dye. For a crackled effect, the cloth should be well crumpled before placing in the dye.

Remove the cloth from the dye when the desired color has been reached. Let dry. Place the batik between folded newspaper and iron out the wax. (This may require several paper changes.)

Vocabulary

intensity
batik
resist
negative space
greyed color

Design Elements and Principles

Color is the dominant feature of the crayon batik. Within the area of color is the characteristic of "intensity." Intensity is the degree of purity a color has. Color crayon batiks may have very intense colors if not diluted with paraffin or if not greyed by mixing complimentary colors together. Usually, children work directly with the colors of the

crayons as they are found in the box; and therefore, the color intensity is high.

PAPER SCULPTURE - PLAYGROUND SCULPTURE CONTEST

Paper sculpture is a process of constructing and assembling paper for the purpose of expressing an idea through form, mass, and volume. Paper sculpture is particularly appropriate for the elementary child as it is easy to manipulate, inexpensive, and a good use for scrap paper.

Materials

glue
base paper (12" x 18" construction paper)
various strips and scraps of multi-colored construction paper
staplers
scissors
brads

Procedure

Pretend you are having a class contest to make up a playground sculpture. Explain that many famous artists use paper "mock-ups" before manufacturing them from more permanent materials.

Show the class various methods of folding paper, such as cones, cylinders, boxes. Show how to cut tabs at bottoms of the shapes so the pieces can be glued to the base paper. Twisting, curling and folding methods can also be explored.

Vocabulary

composition
sculpture
flow
construct
volume
cone
cylinder
mock-up

Design Elements and Principles

Work with interesting shapes with variations in size. Note movement, color and balance. Stress compositional aspects involved in sculpture by asking such questions as:

Would this sculpture be enjoyable to look at?
Do the colors flow throughout the work so it makes you want to explore the sculpture?
Are the shapes interesting enough so you would like to just stay near it and sit awhile?
Would you like to play on it?

> *A teacher evaluating a child's work should look for the unexpected or innovative; that which indicates growth or discovery on the part of the child.*

CLAY MASKS

The incentive for mask making may spring from social studies lessons. Primitive cultures have produced the most exciting, evocative masks based on stylized concepts rather than natural appearances.

Children will find the clay masks one of their favorites as it allows for highly individualized interpretations of facial expression and appearance.

Materials

clay
newspaper
water
water
slip (clay thinned with water to cream consistnecy)
embossing objects (nails, pencils, paper clips, bolts)
knife

Procedure

Wedge clay. Form the clay into a potato shape. With the palms of the hands, flatten the clay until it is a pancake shape about 1/2 inch thick. Drape the clay over 1/2 sheet wadded up newspaper. Cut with a knife or pencil the excess from the edges to form a symmetrical mask shape. A paper pattern can be cut first if desired. Use additional clay to fashion nose, mouth, eyes, hair, etc. (Small rolls and balls of

clay may be utilized by roughing the areas where the clay is to be adhered and adding slip.) Encourage the chilren to be inventive--to make really unusual forms. Let dry at least one week before firing. Remove paper.

Vocabulary

primitive
bas-relief
coil
surface decoration
pattern
stylized

Design Elements and Principles

Facial decoration can be effectively employed to heighten the visual quality of the mask. Students may use lines that repeat and emphasize dominant features. Indented patterns created by using stamps such as bolts, pencils, clips, and other objects may be used. This, in contrast to the raised ball and coil technique can create a very interesting effect.

TISSUE PAPER JEWELRY

Lots of imagination combined with the scrap material of cardboard turn otherwise discardable items into unusual bits of treasure. These unusual jewelry pieces are fun and easy to make.

Materials

all-purpose glue, or polymer medium
assorted colors of tissue paper and masking tape
flexible cardboard or oak tagboard
scissors
brush
tweezers

Procedure

Directions here are for making a pendant; but the same process may be used to make rings, bracelets, hats and hair decorations.

Have the children draw their pendant design on a piece of paper. The drawing should be the exact size of the piece of jewelry. Encourage them to consider background colors as well as accent colors to add to the design. Cut out the pendant shape, then brush a coat of glue on the surface. Apply the background tissue paper color over the entire pendant, then coat this with more glue. While this is drying, make ornaments to go on pendant. Jewels may be made from wadded balls of tissue paper covered with the same color of tissue paper glued around it. When dry, these may become rubies, emeralds, or pearls. String, yarn, beads, and tin foil (silver or gold may be added for adornment). When pendant is totally put together and dried, apply one last coat of glue or plastic spray. Make certain the pendant has an attachment for a chain or string. Chains may be constructed by looping wire in the form of links.

Vocabulary

repetition of shape
simplicity of design
combining colors effectively
symmetry
formal balance

Design Elements and Concepts

Simplicity of design manifest itself supreme in this project. Awareness of repetition of shapes and colors in formation of a good design is essential. Appropriate color combination should also be encouraged. This may also be a good project to emphasize formal balance (when making pendant) as one side is often synchronized with the other.

CLAY SLING AND HUMP TRAYS

This method provides a fun and simple ceramic procedure for both the student and classroom teacher. In addition to producing attractive trays or bowls, it expands the appreciation of children for clay as an art medium. It also provides opportunity to employ elements and principles of design in the process of the decoration of the works.

Materials

sling material: Any piece of cloth that allows air to pass freely.

hump material: Old bowls (discarded plastic containers) rocks, wads of newspaper, boxes.

containers of water for smoothing

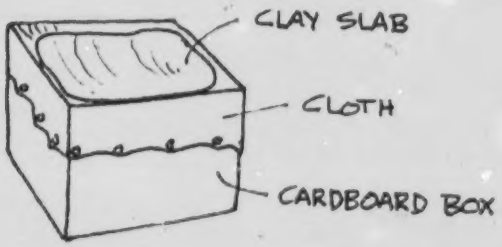
Procedure

Several different methods may be employed in creating this interesting tray. All methods follow the same clay preparation procedure.

Clay Preparation: Have the children prepare the clay by forming a clay ball. The ball is torn in half, then slapped back together (wedged). Repeat this procedure at least 20 times tearing the ball apart in a different place each time. This eliminates air pockets and unmixed material that may cause explosions in the kiln.

Flatten the clay ball by pressing down and out from the middle with the heel of the hand until approximately 1/2 to 1/4 inches thick. Turn the clay often to retain a flat surface. Next, smooth the edges and any cracks that may be in the clay by rubbing over these surfaces with dampened fingers. A clean edge may be obtained by cutting around the edge of the slab with a knife.

Sling box method. Drape a piece of cloth over a box and tack or wire securely in place. Place the clay slab on the material. The depth of the tray will be determined by the amount of droop in the material.



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Hump method. Place a damp cloth over a rock or an inverted bowl or a wad of paper. Place the slab on the material. The depth of the tray will be determined by the amount of droop in the material.

Bowl method. Place a damp cloth on the inside of a bowl. Place the slab inside the bowl and smooth to shape.

Clay removal. Allow the clay to dry for several hours until the clay retains its shape without the support. Be sure to remove the tray from the box, hump or bowl before it completely dries for shrinkage and the fragileness of clay when in the green ware stage make for cracked trays.

Decoration. After the bisque firing, trays may be decorated with tempera paint then dipped in melted paraffin wax or painted with glazes and refired. Indian, Oriental and Scandinavian designs are good examples to be shown when decorating the trays.

Vocabulary

green ware

bisque

compactness of design

Design Elements and Principles

To respect the property of clay and its uses. Although we think of clay as a strong earth material, it has a stage when it is very fragile. Design should be kept compact in respect for the material.

12_

LESSONS

FIFTH GRADE

CONTOUR FIGURE DRAWING

The human form is perhaps the most difficult and challenging subject to draw. It is also one of the most satisfying since we identify most closely with it. There are a variety of techniques with which to draw any subject. The approach we will take in this lesson is called contour drawing. This approach is particularly good for the portrayal of detail and the perception of significant line.

Materials

paper

percil or charcoal, ball point pen, felt pen, crayon

Procedure

Since drawing the figure is difficult, do not let the students become discouraged with questionable first results. Do many drawings and have many lessons. Only with practice and concentration can the children experience success.

Pose the model in the center of the room; place the students in a circle around the model. Change the action and direction of the model with each pose.

Start the lesson with "blind" contour drawing. While drawing the students will look only at the model - not the paper (have them pay close attention to all detail in the subject). The student should draw without lifting the drawing instrument from the paper, just as if tracing the outline of the subject and the detail contained within the area of the subject. The stress here is to notice detail, shape, relative size and placement. A good reality is not likely with this technique - it is other qualities just mentioned that we are seeking.

With several short practice periods both the student and the teacher will be amazed at the progress as the child notices embellishing details such as pleats, ruffles, patterns, belts and uses those to enrich his/her drawings.

After the students master the careful visual discrimination technique they may begin glancing back and forth from model to paper. This will enable them to more accurately reproduce the subject in a realistic manner. Drawing by this later process is called contour drawing as opposed to "blind" contour drawing first described.

Vocabulary

contour
discriminate
detail
blind contour

Design Elements and Principles

The use of line to record detail is paramount in this lesson. Students must see before they can draw. Normally, we simply do not pay enough attention to the detail, pattern, texture or line of a subject when we view it.

BAS-RELIEF - PLASTER AND CLAY

Cast plaster plaques, wall hangings and box tops can be very rewarding to elementary school children. An approach to making such items that can be handled in most of the elementary grades is the plaster-relief process.

Materials

clay
plaster of Paris
boxes
paper clips
gadgets
staining compound - shoe polish, commercial antiquing, stains, oil paints.
wax paper

Procedure

These plaster casts can be made in any size or shape. However, since the clay mold into which the plaster is cast must be in some container with sides almost 1" higher than the clay, boxes work well. One can construct any form though.

First roll out a slab of clay about 1" thick. This should be placed in the bottom of a box or other container lined with wax paper. Otherwise the clay will not readily release from the box.

Then using gadgets, wire, spools, forks, pencils, bottle caps or rope, press a scene into the moist clay surface. Use subjects for this lesson appropriate to the interest of the grade level. (Remind students that the scene or any writing will be reversed on the cast.)

Once the impressions have been made into the clay, mix the plaster of Paris and pour it onto the clay mold to a thickness of about 3/4". If the cast is to be hung on a wall, a paper clip may be inserted into the plaster while it is still wet. Let the plaster set.

Remove the cast from the container. Clean it with a toothbrush and water. Sand away any rough spots and let it dry some. Then coat the cast with diluted white glue and let it dry thoroughly.

For the final touch, apply a patina of stain, preferably an earth color. One can use shoe polish, oil paints or some of the commercial antiquing stains. Various areas of the cast can be colored differently.

Vocabulary

bas-relief
impression
cast
mold
stain
patina

Design Elements and Principles

Pattern, texture, variety and form are all extremely important in this bas-relief approach to sculpture. All three must be combined to prevent the work from becoming uninteresting. Encourage the children to

vary widely the size of the areas and images incorporated in the work and to use point and line generously.

> *Expression, rather than technique should be the criterion for judging the intermediate child's art.*

IMAGINARY PLASTER-COATED ANIMALS

This process of additive sculpture is particularly amenable to today's ecologically-minded society. The materials used for this lesson are usually disposable. Write a letter early in the year to parents to save paper rolls, styrofoam cups, egg cartons, plastic containers and other disposable items. Very shortly enough discards and scraps appear to challenge anyone's imagination.

Materials

Step I

toilet paper rolls
straws
egg cartons
tagboard
scissors
masking tape
other goodies from the discard collection

Step II (performed by teacher)

plaster of Paris, water, newspaper, plastic bucket

Step III

paint, very small brush, newspaper, water

Procedure

Explain to children that the process of imagination generally deals with ideas about something we already picture and expands these or changes them in some way. The product may be a deer's head with a fish tail, or two-headed animals, or animals with wings or horns or strange looking fins or scales. They may have parts of animals we already know but combined in a very imaginary way.

Animals for this project cannot be too large (about 8" long) or the plastering process is far too difficult.

Toilet paper rolls are often good necks, and individual egg compartments make good heads. Beak-like snouts can be made with the pointed part of the carton between the egg compartments. Tape the head parts securely to the neck.

The body can also be made from a toilet paper roll.

The neck can be added to the body by cutting a section from the body and inserting the neck and head. Tape carefully.

For the legs, tape at least two straws together. Tape straws to the sides of the body for legs. Be certain to tape over top of straw to prevent slipping and also across the straw and over the body.

Add tagboard ears, wings, tails, fins; taping each piece very carefully.

If tape is not very tight when the aminmal is dipped in the plaster of Paris, all the parts will fall off.

Check all animals to be sure they are taped properly and that they balance when stood up.

Mix plaster of Paris. Add cold water to plastic dishpan or bucket. Fill about one third full. Slowly add plaster until a small mound appears on the surface of the water. Stir very briefly. Plaster should be the consistency of very thick cream.

Completely surround the entire working area with newspapers. Keep plaster out of sink!

Dip the animas rapidly as the plaster sets quickly. Set up animal on newspapers to set and dry.

Vocabulary

construction
secure
imaginary
delicate
intricate

Design Elements and Principles

This lesson will take two art periods. During the second session, use a very small brush to apply the design in intricate detail, mainly using small dots of color and fine delicate pattern. No area should be painted solid. It need not cover the entire animal's body but could incorporate and enhance certain lines of the animal, like stripes in the legs, lines around the ears. The lines need not be solid but might be a line of dots, small flowers or hearts. The plaster absorbs the paint readily so there is little chance of the paint running and smearing.

CAPTURED SPACE IN A PICTURE STABILE

This lesson can encourage more effective use of space in two-dimensional art. This stabile is created as a three-dimensional environment in the round with clouds, airplanes, moon or sun forming an enclosed sculptured creation.

Materials

1 16"+ long tagboard or heavy construction paper
felt pens or crayons
additional scrap paper
1 large piece of white paper
water color, brushes, newspapers

Procedure

Use the 16" long paper as a base line. Draw a street at the bottom. Add buildings, trees, land, water, etc., to make an interesting skyline. Cut away the sky areas.

Use felt pen to draw in windows, doors and sides of buildings. Paint or color the areas.

Take both ends of the street and staple into a circle.

To create the objects found in the sky, cut clouds (several shapes), stars, sun, airplanes or other sky objects. Staple these together in an irregular arch. Then staple the ends of the arch to opposite sides of the circle of buildings and ground already assembled. Space is captured by joining sky objects in an overarching pattern like an umbrella.

Vocabulary

positive space
negative space
environment
stabile
base line
arch

Design Elements and Principles

Working with positive and negative space is the essence of this lesson. Capturing negative or "nothing" space by placing objects in it brings space to life and makes it special.

BOX SCULPTURE

Imaginary constructions utilizing cardboard boxes, paper rolls, egg cartons and assorted found objects gives upper grade youngsters an opportunity to express art ideas in a three-dimensional form. It is also an excellent way to recycle discarded materials. Begin collecting materials a week or two in advance.

Materials

Step I	Step II
masking tape	paint
pins	newspaper
glue	brushes
scissors	
paper punch	
accumulated boxes and found objects	
knife	
brads	
bottle caps, paper egg cartons	

Procedure

Imaginative themes for box constructions are almost limitless. Examples of possible themes for 5th graders might be space men, space stations, ships, robots, fantastic animals, to name a few.

One method of initiating the project is to have children select three or four different sized boxes and tubes and manipulate these in various arrangements until it triggers an idea.

The most difficult part of the project is the mechanics of fastening the boxes together.

Glue; then tie boxes together with string. Then remove string when glue dries. Glue should be allowed to dry overnight.

The outcome of the project depends a great deal on the number and variety of boxes gathered by the students and teacher. Grocery stores or beauty shops will often save small boxes if you give them a few days advance notice.

Sometimes an unusual box turns out to be just the right head for a monster. Sometimes a partially opened or hinged box can be the mouth of a voracious animal.

Success of this project also depends heavily upon how the constructions are painted. Encourage the use of line, point, circles, bright colors, wide variation in value, as well as an effort to depict the object itself.

When the constructions are painted some glossy surfaces will resist tempera. Sometimes soap can be added to the paint to make it adhere.

Vocabulary

construction
appendage
configurations

Design Elements and Principles

Interest in the project may be heightened by suggesting further use of found materials for textural and decorative delineation. Popsicle sticks, cards, bottle caps, drinking straws, corrugated cardboard can add interesting texture and pattern if applied with uniform repetition.

STUFFED CLAY HEADS

Every child in the elementary school should have several opportunities to create and express ideas in clay. Because clay is so malleable, flexible and pliable it is a wonderful media for modeling a human head.

Materials

clay
newspaper
pencil
water container
small pieces of screen (optional) 3" x 3"
slip

Procedure

Wedge clay. Form the clay into a ball about the size of a grapefruit. By standing and pressing repeatedly in an outward motion the clay can be flattened to a large pancake size. Wad up one page of newspaper. Place the wad in the center of the clay. Wrap the clay around the wad of paper. Leave one side open. This opening will form a tube for the neck. Pinch off any excess clay and smooth into an egg shape.

Add additional paper to the inside of the neck so that it will not collapse when working on the features.

Have students look at each others' jaws and feel their own.

Point out that the eyes appear approximately half way between the bottom of the jaw and the top of the head. Add a small amount of clay for the nose. With the thumbs gently press a slight indentation for each eye. The eyelids actually protrude. Roll very fine coils for eyelids, both upper and lower. A small flattened ball could serve as the eye. Poke with pencil in center. Add slip and rough the surface before adhereing these details. Use a pencil as a tool with which to smooth seams so that they will not show. Fashion the mouth in a similar manner. Many times additional clay needs to be added for the chin and ears.

Smooth finished surface with water. Hair and hats can be added. Hair can be made by pushing a small ball of clay through a screen. (The result is quite realistic.) Add slip before applying the hair; gently cut through shredded clay in some unnoticable places for additional security.

Vocabulary

portrait
bust
facial features
protruding

Design Elements and Principles

Stress the symmetry and the planes of the face. Always encourage students to work for feeling and facial expression. These can be through the directional quality of the lines of the eyebrows, mouth, nose, hair and wrinkles.

PERMANENT WALL MURALS

Permanent murals on the school walls can make the school atmosphere very meaningful to the children. Students tend to take more pride in the building. The additional time and effort extended by the teacher is

rewarded by a change of attitude that often evolves when the school begins to become a personalized part of the children's life. The school becomes less institutionalized.

The emphasis on the importance of art is also a desirable spin-off in subsequent art activities.

Materials

acrylic paint (can be mixed and extended with water base or latex base wall paints).

brushes

water can

wall

newspapers

Initial Preparation

drawings

pencil

paper

opaque projector

overhead projector

Have the children make drawings on a specified subject.

Either with an opaque projector or an overhead projector project the drawings on the wall in a pleasing compositional arrangement. This is far easier than having the children work directly on the wall because of the size and scale. It's also easy to adjust the projector to find the most pleasing relationships.

Allow the children to paint in small groups on the wall.

Outlining the work in black or in a dark color will probably be necessary as the work originates from line drawing.

Vocabulary

scale

enlarge

opaque projector

overhead projector

project

Every child, every man, every culture gives form to its feeling and ideas through art.

GLUE LINE RELIEF PRINTS

This printing process is appropriate for all grade levels. The real differences are the technical skill exhibited, the amount of teacher supervision required and the sophistication of the images produced. Young children respond to birds, fish, flowers, insects, and animals as subjects. Older children will choose images appropriate to their interests such as science-fiction, city-scapes, figure studies, and others of a similar nature.

Materials

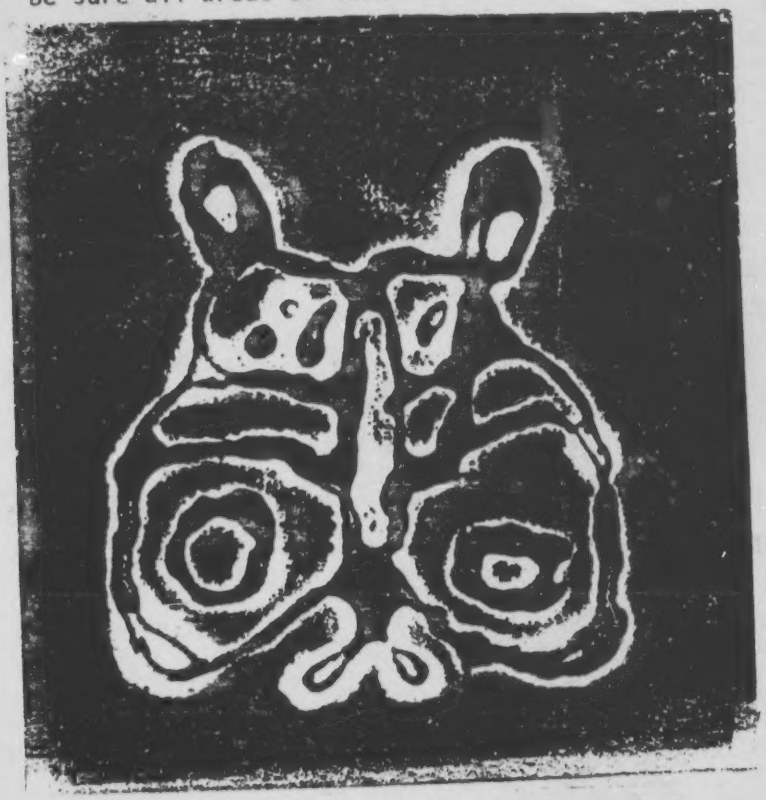
glossy surfaced cardboard (shoe boxes, tagboard)
white glue in smallest nozzle bottle
water-soluble printing ink (preferably black)
soft rubber roller
inking surface
newsprint or colored tissue paper to print on
newspapers

Procedure

A preliminary drawing on the cardboard surface should be made first. Since this process is not particularly amenable to detail, the drawings should be straightforward and not too intricate. Once the preliminary drawing has been made, the plate is ready for the glue application. Hold the nozzle of the glue container against the cardboard and draw a glue line on the pencil drawing. Allow to dry completely.

Apply some ink on the inking surface and roll out with brayer until evenly distributed and somewhat tacky. Apply the inked brayer to the plate with heavy pressure. Place a piece of newsprint or art tissue paper on the plate and press over all areas thoroughly using palm, heel

and fingers. Be sure all areas of inked surface are transferred to the paper.



Vocabulary

relief printing
plate
linear

Design Elements and Principles

This is basically a positive line process. The use of line as a design element, then, should be emphasized. Remember line can be used to create pattern, texture, direction, shape, positive and negative space; and, of course, as a medium of self-expression.

EDIBLE STAINED GLASS (CANDY) COOKIE ART

This is an excellent Christmas project as these cookies look beautiful as tree ornaments. They are also effective hanging in front of a window because of the transparent stained glass effect. In addition they are good to eat.

Materials

aluminum foil

butcher paper

shortening

clear candy

cookie sheet

1 recipe for cookie dough:

Light Dough

1/3 cup shortening 1/3 cup sugar 1 egg 2/3 cup honey 1 teaspoon vanilla 3 cups flour 1 teaspoon baking soda 1 teaspoon salt	Combine shortening, sugar, egg, honey and vanilla. Blend together (thoroughly). Sift together flour, salt, soda. Add dry ingredients to first mixture, a little at a time, mixing well after each addition. (It may be necessary to add a little more flour to make a dough that is not too sticky, and will roll easily.) Store in refrigerator until used.

Dark Dough

1/4 cup shortening 1/2 cup sugar 3/4 cup molasses 1/3 cup water 3 cups flour 1 teaspoon baking soda 1/2 teaspoon salt 1/4 teaspoon cinnamon 1/8 teaspoon nutmeg 1/8 teaspoon ginger	Combine shortening, sugar, molasses. Blend thoroughly. Mix in water. Sift together flour, soda, salt, spices. Add dry ingredients to first mixture, a little at a time. mixing well after each addition. (It may be necessary to add a little more flour to make a dough that is not too sticky, and will roll easily.) Store in refrigerator until needed.

Procedure

Roll the dough with hands into thin coils, the size of a pencil, on butcher paper. Form outline of the design with the dough coils on a greased tin foil. If you wish to hang the cookie, press a loop of string into the top, leaving the ends in a space to be filled with candy for strength after the candy melts. If you wish to put the cookie on a stick, press a popsicle stick into the dough, leaving the end in a space for strength after the candy melts.

Fill spaces with crushed clear candy--suckers, lifesavers, sourballs. Avoid getting candy on the dough because it will burn.

Bake on foil placed on a cookie sheet--350° to 375° for 5 minutes, until candy melts and dough browns. Let cookies cool flat on foil before removing.

A double batch is enough for each class member to make one cookie.

Vocabulary

knead
transparency
coil
stained glass

Design Elements and Principles

In this case, the basic shape of the object is of prime importance. Christmas bells, birds, ornaments can be divided into simple shapes, but keep the interior dough lines thin and not too involved or most of the stained glass transparency effect will be lost.

TEMPERA-INDIA INK RESIST

Since students at the fifth grade level are entering the stage of realism, yet typically have not fully achieved it, the India ink-tempera resist technique will probably be of fascination to them. This technique produces pictures similar in character to those of the famous painter Roualt. These images are rich in color and have the appearance of stained glass windows.

Materials

India ink
tempera
paper (cream colored or construction paper of light value)
newspaper
brushes
white chalk
shellac, polymer or liquid wax

Procedure

On a piece of construction paper draw the picture with white chalk. The width of the lines should vary considerably as this will add

interest to the finished product. (The white chalk lines will be the areas absorbing the India ink later in the process.) Students should plan ahead of time the colors they wish to use and what color each area will be painted since in this process one cannot change a colored area by painting over it with another color.

Paint up to the chalk lines but not over them. The consistency of the tempera paint should be thick and creamy. Once the picture is completed set it aside to dry thoroughly.

Once the picture is dry wipe the chalk off and paint over the entire surface with water-proof India ink. Allow the ink to dry thoroughly.

The picture is now washed off. Place it on a masonite board or other surface and rinse with an easy flow of running water. Except for the chalk line areas, the India ink should wash off of the tempera painted areas. If a stubborn area of ink is encountered a light rub with a sponge or fingers should release the covering of India ink. Finally, blot dry with paper towels and let the pictures dry. Coat with shellac, clear plastic or floor wax if you wish.

Vocabulary

intensity, chroma
hue
value, tint, shade
resist

Design Elements and Principles

The dominant feature of this process is the colored forms outlined in black. It is a good lesson with which to review the characteristics of color: intensity, value, and hue, and contributions of line to an art product; containment, direction, variation. It is also an excellent lesson to encourage the use of pattern and balance.

APPLE-HEAD DOLLS

An old fashioned apple-head doll can be a creative endeavor when the imagination is churning. They are suitable for depicting people ranging from old folks to hippies to gypsies and witches, especially if

dioramic environments accompany their making. Children especially delight in the wrinkled features that appear as the apple dries.

Materials

apples
paring knife
popsicle stick or twigs
rice or peppercorns or marbles
scraps of material
stapler
yarn or straw
pipe cleaners or wire

Procedure

Making the Head. Peel an apple. Then using a paring knife or popsickle stick carve eyes, nose, mouth ears and other facial features. Place marbles or peppercorns in the eye sockets; the rice may be used for teeth. Facial features and anatomy of the head may be pointed out to the older children. Place the apple on a popsicle stick or twig and insert into a soft drink bottle for drying. The drying process takes at least seven days for air drying. Hands or feet may also be carved (for advanced grades) and allowed to dry on the ends of a wire or pipe cleaner. The children delight in watching their doll head shrink and wrinkle from day to day. When dried, additional highlights may be added with paint, but normally the wrinkles are interesting as they are.

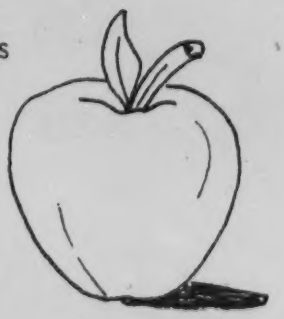
When the apple is dry, spray it with a plastic spray. If hands have been carved and dried on wires--wrap the wire around the popsicle stick just below the head. Another wire may be wrapped further down the stick to serve as legs. If hands have not been carved, two pipe cleaners twisted together, wrapped around the stick and small loops at the ends of the cleaner may be used for hands. For the body, roll three kleenexes around the stick and tie with string. Glue hair to apple-head doll using unraveled packing string or yarn.

Dressing the Doll. Dressing the doll may be an ideal time to teach the contrast achieved by placing patterns on patterns. Usually small

patterns against large patterns are successful. Breaking the patterns with mono colored belts, aprons, suspenders and vests is helpful and develops a pleasant effect. Direct the selection of colors as well as patterns discussing analogous and complimentary color schemes. Simple clothes can be constructed out of these materials by simply stapling these to the doll. Shirts and pants are cut from doubled material. Slip the shirt up over the arm wires--fold ragged edges toward the inside and staple. Do the same for pants. Long skirts may be made simply from a length of material gathered around the middle and tied with a string or belt. When making Halloween witches, black crepe paper makes great skirts and capes. A pointed hat may be constructed from construction paper. Hats, bonnets, scarves, aprons and other notions may be added. Once you've introduced one notion--you'll be amazed at what the children devise to make their dolls individual and unique. The children may want to continue the project by making an environment for their doll out of an old box and other scrap materials that may serve as furniture or outdoor settings.

Vocabulary

carving
pattern on pattern
monochromatic and analogous color schemes



Design Elements and Principles

Facial features that make us unique may be discussed here with an introductory lesson to the anatomy of the head. The use of pattern on pattern and color coordination as interesting aspects of design may be discussed and followed up in later lessons.

PRINTMAKING - LINOLEUM BLOCK

The use of various tools and gouges makes this project especially popular with children of this age. It challenges their technical skills and provides opportunity for advanced experiences in graphic expression. Lino printing is an authentic artistic process in itself.

Materials

unmounted battleship linoleum (soft and pliable)
lino
rubber brayer
inking surface (such as glass or masonite)
printing ink (water-soluble)
assorted paper: newsprint, construction, newspaper, tissue
assorted drawing instruments

Procedure

Begin with preliminary drawings by the children. White crayon on black paper is especially effective for these drawings of the linoleum since the cut lines will appear white if black ink is used with white paper. Students then transfer their designs to the linoleum using carbon paper or drawing directly on the block. Remember to reverse drawing, placing the right side against the block if the final copy is to be the exact replica of the master drawing.

Use of the gouging tools should be explored first. The V-shaped tools are suggested for the initial outlines of the composition and the scoop or shovel may be employed to cut away the background areas. Very probably some of the cutaway background gouge marks will print so some attention should be paid to the direction of cutting these areas. To avoid ink proofing while the students work is in progress, a crayon rubbing may be taken to check progress periodically. Place newsprint on block. Rub vigorously with black crayon.

When desired cuttings have been attained, squeeze the ink onto the inking surface and roll out with a rubber brayer. When the ink feels tacky, apply to the linoleum print.

To "pull" the print, place the paper on the block and apply pressure with a clean brayer or rub with the hand. If water-soluble ink is used, the paper must be pulled sooner or the paper may adhere to the block. While oil based ink makes for a better print, a water base is more economical and practical.

Vocabulary

"pull" a print
brayer
gouge
scooper or shovel
lino print

Design Elements and Principles

Linoleum block prints lend themselves particularly well to the study of composition and the use of line in creating textures and patterns.

LESSONS

SIXTH GRADE

WOOD BLOCK

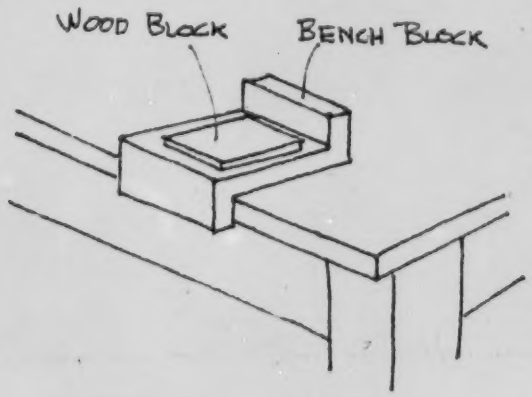
Block prints make intriguing pictures because of the decorative advantages of the grain of the wood. Multiples have many uses. Several prints can be combined to make a whole picture or single prints can be used for practical purposes such as cards, announcements, or posters.

Materials

soft pine blocks
carving tools - V and U shapes
paper
carbon paper
brayer
surface to roll on, floor tile or piece of masonite
newspaper

Procedure

Plan a design on paper that fits the block of wood. Transfer the design from the paper to the wood using carbon paper and a sharp pencil. Carve the design in the wood block. Cut away all the line or areas which you do not want printed. In carving, try to place the main picture in line with the grain of the wood. Keep the hand which holds the block out of the path of the cutting tool. Bench blocks are good to have on hand for this kind of work. They are made of three pieces of wood and hook over the edge of a table. The high school shop may make you a set.



An early check can be made by making a crayon rubbing of the block.

Squeeze the ink onto the floor tile. Roll the ink with the brayer until the brayer has a smooth consistent coating.

Lay the paper on several thicknesses of newspaper. Place the inked block print face down on paper. Press down firmly with the hand or the foot. Or, the printing paper may be placed on the inked surface and pressed with the hand and fingers. Re-ink the block for subsequent prints.

Vocabulary

wood grain
gouge
multiple
wood block print

Design Elements and Principles

Make the students aware of the existing wood grain. The grain can be enhanced by soaking the wood a few minutes to raise the grain. This background pattern should become an integral part of the overall design.

Printmaking is also an ideal time to make multiple images. Different patterns can be achieved by varying the shades of ink.

CHALK STILL LIFE

Chalk is a natural material for shading. Its soft gentle hues can produce beautiful, subtle pictures. Chalk should be used on a rough textured paper with a "tooth" which will better retain the color. Chalk can be blended directly, one color into another with the sticks themselves, using either the tip or side, or it can be rubbed and blended with the fingers.

Materials

kleenex (1 for each student)
colored chalk
newspaper
paper
still life objects: plants, bottles, fruit, antiques, candle holders, and others
chalk fixative

Procedure

Set up the still life in the center of the room on a large table. Have a variety of objects so students can choose the objects of greatest interest to them. They will share the responsibility of the composition.

Point out to the children the fact that the base lines of the closest objects should be drawn first and toward the bottom of the paper. Help to establish the fact that the base lines of the objects further away are higher than the base lines of closer objects. The further objects may be drawn after the closer objects and the further objects may be drawn behind and higher on the paper than the closer objects.

Call children's attention to the light direction. Sometimes the overhead projector can be set at one side of the still life. This produces a good light source and distinct shadows. Have children blend a lighter shade of color on the light side and darker color on the shadow side.

Finished chalk work can be fixed by placing waxpaper over it and pressing carefully with a warm iron, or spraying it with a clear plastic spray.

Vocabulary

overlapping
shading
composition
base line

Design Elements and Principles

Overlapping is a form or arrangement that employs the use of the drawn objects in the creation of space and distance.

Shading, the blending of color and value is a technique not heretofore covered in this guide. It is an essential technique to be learned as the student enters the stage of realism at about grade 6.

BODY MURALS

These effective but easy murals give a very flashy and abstract appearance. They're the very thing for a section of the school that needs a little lift. This is a good example of where a little effort goes a long way.

Materials

5 or 6 pieces different color roll paper 3' x 6' larger
paint
brushes
newspapers
pencils

Procedure

Divide the class so no more than 6 or 7 work on one mural. Work in the hall or establish group corners within the room on floor to lay the murals flat.

Have one child at a time lay down over the mural in any position. Have the other students trace very carefully around the body of the partner. When completed, the next student lays down making sure he/she is positioned in a different direction that the previous partner. All the student's body need not stay on the paper. Continue this process until each student has been traced. Be careful to do an accurate job of tracing details such as hands. No belts, eyes, or interior details are recorded.

After drawing the figures, the final result will be very abstract. Students begin to paint in the areas. Each time they come to a line, they must stop with that color.

Instruct the student to make sure that his/her color is repeated in different areas on the mural. Do not paint immediately right next to a painted area or the two will run together.

Put newspapers all around the edges of the mural. Each student should only have one paint out at a time. This is always kept on the newspaper and not on the mural; that way in case of a spill, it usually isn't a total disaster. Paint each area solid. After the murals have dried, stripes or spots can be added to a limited amount of the spaces.

Vocabulary

abstract
color balance
composition

Design Elements and Principles

This lesson is aimed primarily at composition. Students become aware of the interesting shapes, areas and forms that develop as the picture emerges.

Also, color balance is a natural for this lesson. The artist is very interested in the use of color to move the viewer's eyes around the painting for prolonged interest.

BATIKS

Batiks can be very beautiful but are time consuming to create. The interesting crackle patterns that develop in the dying and drying process are particularly unique.

Materials

paraffin
hot plate
large (#3) coffee can
small (#1) coffee can
brushes
cloth
dye
large containers for dye
newspapers
iron
pencil

Procedure

Melt paraffin in double boiler on top of hot plate. Never put a pan containing wax directly on a burner!

If desired, a soft pencil sketch on the cloth can be made of the subject to be painted.

The process of batiking is painting hot wax onto areas of a cloth. The wax acts as a resistant to a dye bath in which the cloth is next placed.

Always start with the lightest shades of dye and move to the darkest. It is important to remember which colors when mixed together make another color. First paint with wax the areas you wish to remain white, then dye the project yellow. If you used blue dye next, you would probably get green so it is good to stick with family color combinations. A good progression of dyes would be yellow, orange, red, purple, black; or, light blue, blue, green, purple, brown, black.

Each time you paint with paraffin on a color, you are preserving that color in your picture. Paint wax on the white, dye cloth yellow, paint wax on yellow areas, then dye cloth orange. Paint wax on the orange areas, then dye cloth red and so on.

For a more crackled effect after each waxing, the cloth can be placed in cold water, crackled, then put into the next dye.

Fabric must be allowed to dry in between each dye process. Wax should be kept hot so it soaks into the fabric.

When all dye processes are completed, place the dyed cloth between pads of newspapers. Iron to remove wax. Change newspaper pads often until all wax has been removed.

Usually these fabrics will need to be dry cleaned rather than washed if used for a functional purpose.

Vocabulary

batik
crackled
intricate
resist

Design Elements and Principles

Emphasize the knowledge of the color wheel. Which colors blend to make another color, which will cover over another. Remember that most colors opposite the color wheel when equally mixed will turn grey.

TIE AND DYE

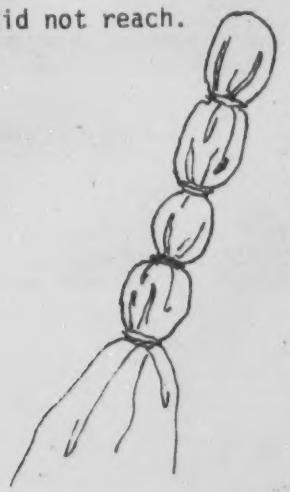
In addition to being a delightful and fascinating art medium, tie and dye is especially appropriate for children of this grade level because it involves physical activity and can produce attractive, functional objects.

Materials

cloth - cotton, muslin, silk
dyes
cord or heavy string
hand iron
various sizes of brushes
sticks
pan for dye
stones
newspapers
jars

Procedure

When a dye-absorbant material such as cotton cloth is twisted, rolled or bundled together and wrapped in various locations tightly with string, the wrapped areas prevent the dye from entering the cloth. When the material is removed from the dye and the string removed, patterns are formed where the dye did not reach.



There are several methods of tying the material that produce different effects. To produce concentric circles, pick up the material at the point you wish to be the center of the circle. Fold it as evenly as possible from the center point, and tie string tightly around at various places. Circles will appear where the string was tied.

To produce squares, fold the material along the diagonals and tie string tightly at various points from the center. To make stripes, fold or roll the cloth lengthwise and tie at various intervals along the length. One can make other effects by tying into the cloth such items as stones or sticks.

The material used for tie-dye should be washed first. (This removes sizing and dirt.) Place the tied material in the dye solution and agitate. Do not over-dye as the dye will soak into the tied areas. Remove and rinse in cold water. The dye should be saved and re-used in future lessons. Press with hand iron while still slightly damp.

Vocabulary

tie and dye
fast
resist
concentric (squares and circles)

Design Elements and Principles

The principle element of the tie-dye lesson is inventive and interesting use of pattern. It does take practice as with any medium to become skilled at creating new designs with the tie and dye approach so if possible more than one lesson should be planned for this technique in the upper elementary grades.

CLAY SCULPTURE

Throughout all five preceding grades, students have been involved in clay projects. Modeling with clay is a particularly challenging project even for those students with some experience. But it is also an especially rewarding one.

Materials

piece of board or masonite to work on
clay
water and container
stain or coloring material of some kind
gadgets and texturing materials
newspapers

Procedure

Give the students a limited option of subjects with which to work. For sixth grade, the human form along with animals of all types and environments such as room interiors are appropriate.

Animal and human body forms can be made around a wad of papers or they may be constructed by simply rolling a cylinder of clay to the correct dimension. Solid objects such as sticks or wire should not be used as the clay will crack as it shrinks during the drying process.

Arms, legs, heads may be joined by punching a hole in the body and pushing the limb into the hole, then seal and smooth the connection with clay.

Of primary importance in modeling is to get the "feel" of the subject. If students are working with animals, a field trip to a farm or zoo is a worthy learning experience. If they are working with a human form, they should have a model in an interesting pose and try to capture the gesture and feeling of the pose along with the approximate proportions.

The finished work should appear correct from all directions.

If the students use a piece of wood or tempered masonite upon which to place the clay, he/she can rotate the work to help achieve a good all-around appearance.

Finishing the sculpture can be done by using texturing materials such as screen, forks, bottle caps, etc.; or line decoration using gadgets such as gears, keys, saw blades, nuts, etc.

The works should be bisque fired and then colored, or stained, in some way. One might use shoe polish or commercial stains, antiquing material, or even oil pastels worked into the surface. Glazing is usually not very practical for the elementary grades.

Vocabulary

modeling
"feeling"
gesture
bisque
stain
texturing

Design Elements and Principles

The most important design elements involved in this lesson are the form and variety of the work. Form encompasses the feeling that is to be portrayed. The variety, present in the detail of the subject and the surface quality is important to break the monotony of the form alone.

CLAY JEWELRY

A simple, effective and fun way to make jewelry is by forming it from clay. Beads and pendants are particularly easy to make and appropriate to this medium. The teacher should encourage students to wear the jewelry that has been crafted in class.

Materials

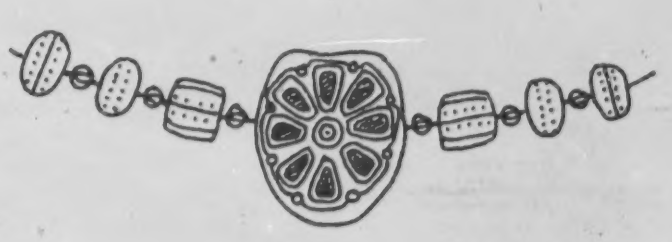
clay
plastic spray or floor wax
tempera paint, water colors, felt pen or other coloring mediums
water container
toothpicks
pencils
paring knives
brushes
gadgets

Procedure

Beads can be rolled in the form of small balls, egg shapes, or other shapes in any size desired. A round toothpick is inserted to form the hole. Leave the toothpick in the bead until a decoration has been applied or pressed into its surface of the beads if desired. The toothpicks can be removed after the design has been made. Beads can also be made by rolling along into a cylinder and slicing off pieces. (The clay can be rolled initially over a toothpick.) Oftentimes a necklace of beads looks more attractive if it contains a center of interest. Pendant shapes can be formed by "stamping" a ball of clay with a gadget or they may be constructed using coils, balls and slabs of clay.

Anything that can be hand-formed on a small scale can be part of the jewelry making lesson. Encourage the students to experiment. Reward originality.

Once the jewelry has been formed, it must be fired. After it has been fired, it can be decorated using a small brush and paint or a felt pen. The surface should then be sealed using a clear plastic spray or floor wax.



Vocabulary

pendant
impressions
stamping

Design Elements and Principles

Fundamentally, this lesson deals with the use of "point" in decorating the human form. Such strings of point can emphasize the contour of the body, they can encircle or capture areas of interest, they can break the line and add interest to an arm or leg, and so forth. Have students consider how point is used in the areas of art and decoration in our everyday lives.

PRINTMAKING - ALUMINUM FOIL RELIEF

This process is an exciting metal embossing process that results in fascinating prints and a printmaking plate that has an unusual beauty all of its own.

Materials

heavy duty aluminum foil
water-soluble printing ink
blunt pencils or ballpoint pens
soft rubber rollers
white glue
newspapers
gold patina

Procedure

This process requires first the making of a glue line plate and print.* Assuming these steps have been taken and while the ink on the plate is still wet, place a sheet of aluminum foil, shiny side up and slightly larger than the plate (so that the edges may be folded under), on the plate and roll with a soft rubber brayer. After it has been rolled with the brayer and pressed with the hands fold the excess under. (The ink causes the foil to stick to the plate.)

Using a blunt pencil point or wood end of a paintbrush press in the foil along the edges of the glue lines to accent the relief. Do not puncture the foil. Then add additional patterns and textures wherever appropriate such as veins on leaves, bird feathers, bark on trees, etc.

Once satisfied that the foil has been adequately designed, prints may be "pulled" from it. Apply water-soluble ink to the entire surface with a brayer. Only the indentations should remain clear of ink. Place newsprint or colored tissue paper on the inked plate and press with hands, fingers, and soft rubber brayer. Remove and dry the print.

*See p. 131

While the ink is still damp on the foil plate, wipe with flat paper towels to remove ink from the raised foil areas. Polish with flat dry paper toweling.

A patina of gold Rub'n'Buff or Treasure Gold may be applied to selected areas or oil paint may also be used sparingly.

Vocabulary

patina
embossing
pulling prints
relief

Design Elements and Principles

This lesson is a good one to encourage the use of variety in shape and size of area and texture. When a total image depends on line and texture and perhaps, patina, variety is an important element in terms of producing interesting results.

SOFT SCULPTURE

Soft sculpture lends a warmth to hard surface, cold school rooms, creating a secure, safe environment in which to create, learn and grow. Flexibility is the key when creating this type of sculpture. This project adapts well to involving parents in their child's school program. Sculptures may be adapted to make fun pieces of furniture or hung from ceilings or walls to solve acoustical problems.

Materials

cloth: Send out a request via your students for scraps of material. (Often drapery stores, re-upholstering shops and fabric stores are happy to donate out-dated samples.) Old out-grown clothing is great also.

stuffing: Anything from newspapers, styrofoam packing materials to old nylon stockings will serve this purpose. Include this in your note to the parents.

notions: Buttons, sequins, empty thread spools, bottle caps, felt tip pens.

Procedure

Several different approaches may be used when implementing this project. Two are described here. Once you've begun, there are a hundred more possibilities open to you.

Dolls out of worn-out clothes. Have the children bring to school little brother or sister's worn-out shirt, pants and socks. Precut face and neck shape out of an old sheet. (Be certain it is doubled for stuffing.) Have children draw their own face onto the sheet. Pin the head to the shirt or dress. Cut out (double) arms, legs, or whatever else is needed to complete the doll. Knee socks are terrific for legs and plain socks for dolls wearing pants serves as shoes. Pin all items together--package them up to be sent home or to a few pre-contacted mothers to be sewn and stuffed. Usually zig-zag stitching with black thread is the most efficient and effective process for putting the doll together.

Dolls out of cloth. The same method of constructing dolls out of old clothes may be employed except that scrap materials are used to make pants,shirts, and other clothing items. Placing these on an old sheet doubled, have the children draw the head, legs, arms, and hair with the felt tip pen (use varying colors). Pin these together to be sent to sewing parents to zig-zag and stuff.

Sculpture furniture. Many times a particular drawing a child makes is appropriate for a piece of furniture (turtles make excellent chairs and pillows) or hanging (animals, horses, clouds and cupids). Have the children draw several pictures. Select the most appropriate drawing. Place this on the opaque projector or transfer it to an overhead projector transparency and project it directly onto the material the desired size. (Be sure to cut a backing as well). Have the children trace the design on the material with felt tip pens. Embellishments may be created by adding cut outs from other fabrics, yarns, or buttons. Pin the pillow or piece of furniture together and send off to parents to be stuffed and sewn.

Vocabulary

soft sculpture

color coordination

Design Elements and Principles

Visual and tactile texture are very important concepts of this lesson. Soft sculpture creates unique emotional response not attainable thru other media. It is important for children to experience this phenomena.

WEAVING - TWIG LOOM

Too often the concept of weaving is one of producing a very formal tapestry on a wooden loom. In truth, weaving can be and should mean to children the weaving in and out of any material, yarn, plastic, metal, or others, on any kind of functional containing frame. The twig loom helps to build this concept of weaving.

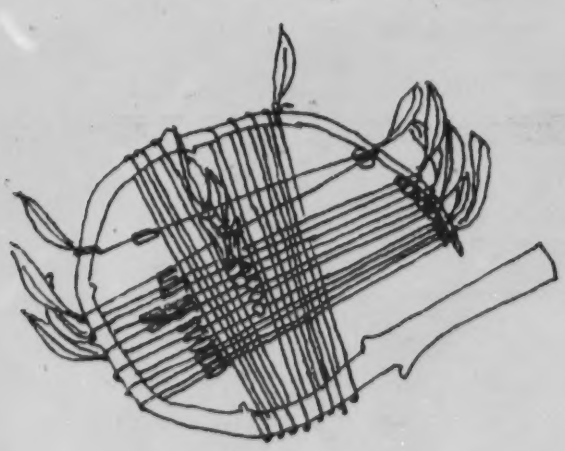
Materials

a branch strong enough to support weaving

yarn, plastic or other materials to be woven

Procedure

Bend the twig or branch to the point that a warp can be strung. The warp need not be parallel but can even radiate from a center. Weave material through the work with the fingers. Beads, feathers, wood and other items can be incorporated in the weaving. The entire warp area need not be filled. Open spaces can be left to enhance the design. The twig will remain as an integral part of the weaving.



Vocabulary

warp

weft

positive space

negative space

Design Elements and Principles

Since open space can be left in this weaving, the concepts of positive and negative space become very important. (The positive space being the material woven closesly, the negative space being just the warp areas.) The completed woven twig when displayed has a definite "form" by itself and represents a positive space when displayed against a background.

SCULPTURE - VERMICULITE AND PLASTER

Vermiculite and plaster (and other plaster mixes) provide an excellent carving medium for students in the upper elementary grades. The finished work can be made to have a handsome patina resulting in imposing artwork.

Materials

plastic bucket
vermiculite
plaster of Paris
carving tools, such as paring knives, spoons, nails, chisels, files
cartons of cardboard
wax paper
vaseline

Procedure

The plaster and vermiculite mixture can be made according to the following formula:

2 parts vermiculite
3 parts plaster
3 parts water

One can increase the amount of plaster to increase the hardness.

Mix ingredients thoroughly in a plastic bucket until there are no lumps. Pour into molds such as milk containers (which are already waxed) or cardboard boxes lined with wax paper or covered with shellac. Then let the mixture set until it is hard. It is best to wait until the next day to carve the material, but it may be carved after about 30 minutes after it has hardened. If the plaster becomes too hard to carve easily, submerge it in water for a while to soften it.

Any hard instrument might be used to carve the plaster and vermiculite mixture such as those listed under the Materials section. Select an appropriate tool to carve the shape or form desired.

Once the carving is complete, the work can be finished by sanding or rubbing with steel wool. A patina can be placed on the finished work by rubbing with shoe polish, commercial antiquing material, or diluted paint.

Human forms, animals, non-objective shapes, cars or space vehicles--simple common objects in our environment--are all things sixth graders might wish to carve. Some subjects chosen may need an armature such as wire for support. In this case, the plaster and vermiculite mixture can be applied or built up on the armature quickly before it has a chance to set.

Vocabulary

plaster and vermiculite
carve (as opposed to model)
mold
separate (mixture from box)
patina

Design Elements and Principles

Have students work in a shallow, large cardboard box. This will contain many of the drips of plaster but will also permit the rotation of the work so that it may be viewed from all sides. Sculptures produced by carving should be interesting images. They should have a feeling of balance and composition from all angles and should capture and contain the eye.

PHOTOGRAPHY

Introduction

Why teach photography? Our assumption in preparing this course of study is that photography has value for students by giving them the opportunity to express and design their ideas in a way which cannot be achieved in any other media.

We have four general reasons for using photography in the schools:

1. Photography creates interest and appreciation of art.
2. Photography increases visual awareness.
3. Photography promotes self evaluation.
4. Photography teaches discipline and organization.

Photography creates interest and appreciation of art. The high motivational involvement with photography evolves from two sources. First is the element of mystery and magic that is paramount in today's world of sophisticated technology. The ability to develop film and print photographs is not just a technical skill but a mysterious process known only to a few. The magic of an image appearing where a void has existed before affects even the most skeptical with confidence and enthusiasm.

Involvement and gratification lead to appreciation. Students will see results as soon as their first roll of film is developed. This will be an exciting time for them. As soon as a print is made the students have their first tangible finished product. Though the initial results will not be too sophisticated, the excitement produced will help them to understand and appreciate the technical and aesthetic principles of photography.

Photography increases visual awareness. The camera's viewfinder is a device that forces the students to be selective in their choice of composition, and thereby sharpens their powers of observation. In today's visually flooded environment, observation skills gained through the use of photography provide the student with the necessary tools for survival in a world of visual communication. He gains experience in these skills by applying artistic principles to the technical aspects of photography.

Photography promotes self evaluation. In producing photographs, the student has committed himself to a visual statement. These visual statements he has created force him into a position of problem solver and prompt him to answer questions that touch on his basic beliefs. Experience gained in photography and in creating visual statements promotes a healthy question of one's values.

Photography also promotes self evaluation by experiences gained in accepting criticism of these tangible products. Learning to accept criticism, both good and bad, builds strong confidence of self worth.

Photography teaches discipline and organization. Freedom, in fact, comes through discipline. In photography a certain body of techniques must be maintained before any real personal control can be exercised over the work. A certain amount of technical proficiency will free students from concerns of routine procedures, allowing more time to deal critically with the effectiveness of their photographs as communication. Technique and expression (communication) feed on one another.

PHOTOGRAPHY

Grades 1-6

Special Note: The following program is recommended as a foundation for basic photography at any age level if the students have had no previous photography experience.

FREEING UP

Definition: The introduction of photography principles for freedom of expression.

Objectives: To enable the student to act and think without hindrance or restriction to pre-conditioned ideas or rules.

Experience 1

Materials: Photo paper, strong light source, darkroom and darkroom equipment. (Refer to formula section for darkroom set-up.)

Activity: Produce photogram images on photographic paper. The room must be darkened. Arrange objects on the photographic paper. Expose arrangement in a strong light for about 6 seconds. Then place the exposed sheet in a tray of developer. When black areas are developed, put sheet into short-stop solution for a few seconds. Then slide sheet into "fixing" solution or hypo. After 10 minutes, place photograms in clear running water for about 20 minutes. Dry photograms. Experiment with opaque and translucent objects.

Experience 2

Materials: Polaroid camera, instamatic camera, and film.

Activity: Camera use - Have cameras available for student use. Have each student shoot a given number of pictures within a very short time span. This is to help the student free himself from indecisions, and self consciousness. Discuss pictures.

Experience 3

Materials: Clear contact paper, magazine pictures with a clay coating (slick), water, sponge, and a ruler.

Activity: Making transparencies - Press clear contact paper over a magazine picture. Soak the print in water then gently scrape the magazine print from the contact paper.

Experience 4

Materials: Photo paper, negative strips, sheet of glass.

Activity: Contact prints - In the dark or with safety light, red or amber, lay the printing paper emulsion side up and on the top of that place your strips of negatives, emulsion side down, side by side on the paper. Place the sheet of glass over them. Now turn on the light, leave it on for about 15 seconds, then turn it off again. Develop the paper the same way you would develop a regular print.

Experience 5

Materials: Straight pins, blackened negatives or slides, slide projector.

Activity: Scratching Negatives - Scrape the emulsion off blackened slides to draw a "picture" on the slide.

ANGLE OF VIEW

Definition: To explore objects from different points of view and to stimulate visual perception.

Objective: Students should photograph human size objects from different angles of view.

Experience 1

Materials: Camera and film

Activity: Students will photograph a human sized object such as a car, bush, bicycle, to show three to five different angles of view. (Above, side, under, etc.)

Experience 2

Materials: Poster type paper, paste, magazines, scissors.

Activity: Select one particular object for the subject of their poster. Then cut pictures of that object from magazines. See how many different angles of view will be shown of their object.

Experience 3

Activity: Construct and use a pin-hole camera. (Refer to the formula section for construction directions.)

SEEING PART OF THE WHOLE

Definition: Being able to construct a mental picture of an object by interpreting its smaller parts.

Objective: Students should produce a series of different pictures from one picture.

Experience 1

Materials: Newspaper, magazine, photographs.

Activity: Designing photographs - Collect magazine pictures as well as photographs of family and friends. Discuss those sections of each picture that attract your attention or are interesting in a special way.

Experience 2

Materials: Black construction paper, scissors, paste and poster paper.

Activity: Use a divided picture frame cut from black construction paper to crop a picture so that the most interesting sections are revealed. Outline these areas and then mount the "new" images you have created and cut them out. Mount the "new" image on a piece of paper.

Experience 3

Materials: Cameras and film.

Activity: Photograph a part of a human size object in such a way that the picture could describe the whole object, situation or feeling. For example: a curtain blowing to show it's a windy day, a baby's hand holding on to a mother's fingers to tell the whole story about babies and mothers, a tire mark and shattered glass on pavement to relate the scene of an accident.

SELF-PORTRAITS

Definition: To create pictures that will reveal an individual's personal features and personality.

Objective: Students will make several different types of self-portraits to develop awareness of his self-image.

Experience 1

Materials: Snapshots of each student, magazine pictures, scissors, poster paper.

Activity: Cut up snapshots of yourself and pictures from a magazine. Recombine the pieces to make interesting and amusing illustrations (yourself riding to the moon; performing unusual actions; being part of a different environment).

Experience 2

Materials: Photographs from home, magazine pictures, paste, scissors, poster paper.

Activity: Collage pictures can be made from existing photographs or from magazine illustrations. The collage is to express the student's personal characteristics. For example, some of his favorite hobbies, foods, places, sports.

Experience 3

Materials: 2 X 3 foot piece of newsprint (2 for each person), pen, pencil or crayons, camera, slide film, slide projector.

Activity: Give each child a 2 X 3 foot piece of newsprint and let him draw a full-length picture of himself, putting in as much detail as he can. Then put these pictures away. Now take a slide picture of each child showing his whole body, head-to-toe. Then, have a child lie on a piece of newsprint and let another child draw around him. Project their slide on a screen nearby and let them draw in the details on the newsprint outline. When this is finished, cut it out and paste it on a piece of cardboard so that it will stand up. Now get out the original drawings the children made and let them compare.

MOTION AND MOVEMENT

Definition: To communicate the idea or feeling of motion through the use of still pictures or photographs.

Objective: Students are to produce images that illustrate movement and/or a feeling of motion.

Experience 1

Materials: Stiff paper, crayons, pencil or dowel stick.

Activity: On one side of a piece of stiff paper draw a bird, on the other side a cage for the bird. Attach the drawing to the tip of a pencil or dowel stick. Twirl the stick to create an illusion of motion. Try a hand and cup; laughing and crying faces.

Experience 2

Materials: A small notebook, pages stapled or tied together, pencils and crayons.

Activity: On one side of each page, near the right hand edge of the paper, draw figures or shapes. Have the position of each figure or shape change slightly as you proceed from page to page. Flip pages to animate the drawings.

Experience 3

Materials: Camera and film.

Activity: The teacher will demonstrate the technique of panning. Have the students select a fast motion situation (passing cars) and by applying the technique of panning, their pictures should register a blurred background while retaining a sharp subject image.

Experience 4

Materials: Cameras, film, magazine pictures.

Activity: Proof of motion can also be expressed by capturing suspended motion. For example, an airplane in flight, a pole vaulter crossing the bar. Have the students make their own picture of suspended motion.

STORY - SEQUENCING

Definition: To identify and illustrate visual sequencing skills within a story structure.

Objective: Students will use visuals to create a story sequence.

Experience 1

Materials: Magazines, scissors, paste, poster paper.

Activity: Pictures from magazines can be cut and pasted on a background paper to construct a story. An arrangement of inconsistent or normally incompatible images can often produce unconventional results. There is enormous scope for individual creativity, humor and imagination. Then have each child share his story with the class.

Experience 2

Materials: Cameras, film (print and slide), slide projector.

Activity: Demonstrate the use of photography to increase the value of field trips. If each child can take a camera, then he can take pictures of those features of the trip that are most interesting. If cameras must be shared, then each child should have the opportunity to take a few pictures. When the trip is over.....

1. Let each student tell about the trip using his pictures.
2. Construct a bulletin board to describe the field trip.
3. Make scrapbooks describing the field trip.
4. Produce a slide show. Place the field trip pictures in proper sequence and prepare a recorded tape to narrate the field trip.

Experience 3

Materials: Story books, drawing paper and crayons, visual-maker, tape recorder.

Activity: Have the class select a story from a book or a story record. Read the story aloud to the class or listen to the record. Have the students make

pictures that will show who is in the story; what they did; when it happened; what happened; what will happen next. When all the pictures are complete, have each child arrange his pictures in the proper order. Now read the story or play the record and watch the pictures. Combine the pictures from each "artist" to illustrate the story. Use the visualmaker to prepare slides of the pictures.

Experience 4

Materials: Cameras and film.

Activity: The pure-picture story. This is used occasionally for short "how-to-do-it" picture sequences which are self-explanatory. Since everything must be conveyed in visual form, this is the most difficult type of picture story and should be used only in instances involving predominantly factual rather than intangible subject qualities. For example, an illustrated notebook can be made by the student to demonstrate the construction of a box kite or canning tomatoes.

MULTIPLE IMAGES

Definition: Placing two or more images together to create a new, unique, and separate idea which amplifies the meaning of the individual parts.

Objective: Students will create a new image by manipulating and rearranging a group of images.

Experience 1

Materials: Slides, slide projectors, screen.

Activity: Two different slides will be projected onto the screen but from separate projectors. Have the students come up with their own unique combinations.

Experience 2

Materials: Overhead projector, transparencies made with clear contact paper.

Activity: Transparencies, slides, or negatives can be sandwiched together to create a totally different thought. Have the students make their own transparencies with the overlapping effects in mind. Let them share their creations with the class on an overhead.

Experience 3

Materials: Cameras and film.

Activity: Reflections can create a delightful photograph by increasing its content or mood. Have the students produce their own photograph showing the characteristics of the following reflection categories:

1. Undistorted Reflections - mirror reflections or water reflections.
2. Distorted Reflections - reflections on a curved surface such as a shiny car fender.
3. Superimposed Reflections - transparent surfaces can be used to create surrealistic effects since they permit the photographer to simultaneously show objects in front of and behind his camera,

e.g., a window reflection. Successful utilization of superimposed reflections depends upon two conditions: that objects behind the reflecting screen be somehow related to those reflected on the screen and that no reflection of the photographer or the camera appear in the picture.

SYMBOLISM

Definition: Identifying and interpreting subjects or symbols and incorporating them into an extrinsic environment.

Objective: To identify or interpret symbols.

Experience 1

Materials: Cameras and film.

Activity: Identification of symbols - Have the children take pictures of important symbols found around their school or home environment (crosswalk paths and street lights). Then have the children discuss the meaning of each picture.

Experience 2

Materials: Cameras and film.

Activity: Identification of symbolic characters - Have the children take pictures of people around school, home and the community such as the principal, policeman, or a parent. Then have the prints displayed on a bulletin board with a caption giving their identity, job or responsibility and where each can be found.

Experience 3

Materials: Cameras, film, poster paper, magazine pictures.

Activity: Interpretation of a symbol or symbolic character - Present a picture of that which you want the students to react to. Then have the students create a collage or notebook with actual picture or picture cut-out of a magazine which would show what this particular object means to them. (The duties and characteristics of the object.)

Experience 4

Materials: Cameras, film, magazine pictures, paste, scissors, poster paper.

Activity: Incorporating Symbolism - By changing the position of an object in a picture you can change its symbolism. The same is true if a particular symbol

is placed in an unrelated environment. Have the students experiment with the composition of a picture to demonstrate how the emphasis can change as the position changes. For example, a long shot shows the relationship between a subject and its surroundings, whereas a closeup for the most part concentrates on documenting texture and detail. Have the students construct a background environment on a poster, using magazine pictures. Then place a picture of a symbol in the environment which is normally alien to that particular symbol. Get the class to react to each poster.

EVALUATION

Photography has value for students in giving them the opportunity to express and design their ideas and desires. Evaluation of the objectives of the course of study should be tailored to the individual class and student. The key to this evaluation should be based on the growth of the individual. Each student should be evaluated with a firm idea of his or her starting point (skills), finished product, and distance traveled. Areas of consideration in this evaluation are technical quality, creativity, expression, organization, discipline, and self-evaluation.

A. Technical Quality
   1. Composition
   2. Sharpness of image
   3. Contrast
   4. Print quality (scratches, dust, exposure)
   5. Use of light

B. Creativity and Expression
   1. Visual impact
   2. Composition
   3. Special techniques (filters, depth of field, shutter speed, multiple exposure)
   4. Tonal balance (complementing mood of image)

C. Organization and Discipline
   1. Use of established darkroom techniques
   2. Use of camera as a basic photographic tool to accomplish assigned task

D. Self-Evaluation
   1. Willingness to accept criticism
   2. Improvements from critical evaluation
   3. Initiative to produce self-directed work

RECIPES AND FORMULAS

Film Development Procedure

Temperatures at 68°

1.	PRE-SOAK:	Pour in water to fill tank. Agitate for one minute, then discard.
2.	DEVELOPER:	Pour in developer, then tap tank twice (to release air bubbles), agitate for the first 30 seconds, then agitate for 10 seconds each minute. At the end of development, pour out. Time of development and temperature of chemicals are critical. Refer to data sheet with film.
3.	STOP BATH:	Pour in indicator stop bath, agitate like developer, then discard after 30 seconds to one minute; or, fill and empty tank four to six times with water.
4.	RAPID FIX:	Pour in. Then agitate like developer for two to three minutes. POUR BACK INTO BOTTLE. With regular fixer, agitate for 7-10 minutes.
5.	WASH BATH:	Open film tank and fill and empty tank with water 12 to 15 times, or total wash time of two minutes.
6.	HYPO CLEAR-: ING AGENT	Pour in Hypo Clearing Agent, agitate like developer for two minutes.
7.	FINAL WASH:	Place film reels into film washer and wash for ten minutes.
8.	PHOTO FLO:	Pour in photo flo, agitate 30 seconds to one minute.
9.	SQUEGEE:	Hang up to dry.

PAPER DEVELOPING

	STEP	TIME	CHEMICAL
1.	Developer	1 1/2 minutes (1-3 minutes)	Dektol (diluted 1:2 with H20)
2.	Stopbath	10 seconds	Indicator Stopbath
3.	Fix	7 minutes (5-10 minutes) White light okay after 30 seconds	Fixer or Rapid Fixer (1:1)
4.	Wash (A. or B.)		
	A. Wash	1/2 hour	Running Water
	OR		
	B.	Single Weight/Double Weight	
	Rinse	1 minute / 1 minute	Water
	Hypo Removal	2 minutes / 3 minutes	Hypo Clearing Agent
	Final Wash	10 minutes / 20 minutes	Water
5.	Drying		

NOTE: With rapid-drying resin-coated enlarging papers all that is needed for washing is one minute under running water.

USEFUL CAPACITIES OF SOLUTIONS IN TRAYS

Solution	Life	8 x 10 Inch Sheets Per Quart
Dektol (1:2)	12 hours	30
Indicator Stopbath	3 days	Discard when the color changes to purplish blue
Fixer or Rapid Fix	1 week Strength can be checked with Hypo-check	25
Hypo Clearing Agent	24 hours	20 without pre-rinse 50 with pre-rinse

KEEPING PROPERTIES AND USEFUL CAPACITIES OF SOLUTIONS

SOLUTION	KEEPING PROPERTIES WITHOUT USE				USEFUL CAPACITIES	
	Stock Solution in Stoppered Bottle		Working Solution		8 X 10 Inch Sheets per quart	
	Full	Half Full	Tray	Tank	Tray	Tank
D-76	6 mo.	2 mo.	24 hr.	1 mo.	2 1/2	2 1/2 with replenishment
Microdol-X	6 mo.	2 mo.	24 hr.	1 mo.	4	4 with replenishment
			If diluted 1:3 throw away after used once			
HC-110 (Dil A)	6 mo.	2 mo.	24 hr.	2 mo.	5	10 with replenishment
HC-110 (Dil B)	3 mo.	1 mo.	24 hr.	1 mo.	2 1/2	5 with replenishment
Dektol	6 mo.	2 mo.	12 hr.	-----	30 (1:2)	-----
Indicator Stopbath	Indef.		3 days	1 mo.	Discard when the color changes to purplish-blue.	
Fixer	2 mo.		1 week	1 mo.	25	
Rapid Fixer (with hardener)	2 mo.		1 week	1 mo.	Negatives - 30 Prints - 25 (dil 1:1)	
Hypo Clearing Agent	3 mo.		24 hr.		Prints - 20 without pre-rinse 50 with pre-rinse Negatives - 12 to 15 without pre-rinse 35 to 50 with pre-rinse	

*Approximate roll to sheet equivalents:
1 roll 35mm (36 exposure) = 8 X 10-inch sheet
2 rolls 35mm (20 exposure) = 8 X 10-inch sheet
3 rolls 126 (instamatic 12 exposure) = 8 X 10-inch sheet
1 roll 120 or 620 = 8 X 10-inch sheet

TRAY ARRANGEMENT FOR PAPER DEVELOPING

Developer Diluted 2:1 1-3 minutes	10-15 seconds Stop bath Acetic acid	7-10 Fix	3 minutes Hypo-clear (optional	Wash running H^2O 15-30 minutes

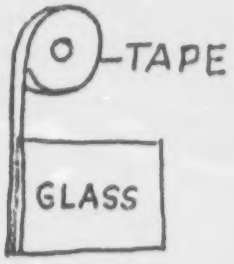
Mix stock solutions of developer, stop bath, fix, hypo clear as directed on labels.

CONTACT PRINTER AND CONTACT PRINT

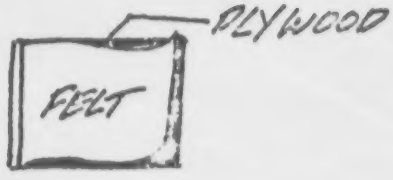
Materials

1-12" x 12" glass
1-12" x 12"1/4" plywood
1-12" x 12" felt
1 roll duct tape 2"

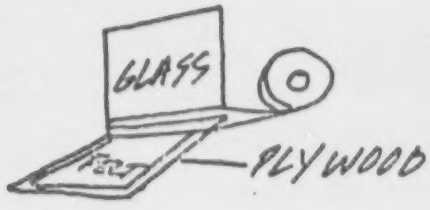
1. Tape glass edges.



2. Tape felt to plywood.

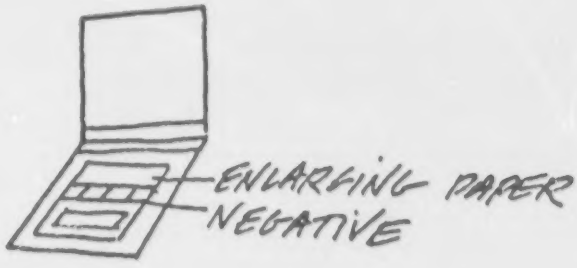


3. Form tape hinge.



4. Expose according to density of negative 4-10 seconds.

5. Develop as a normal print.

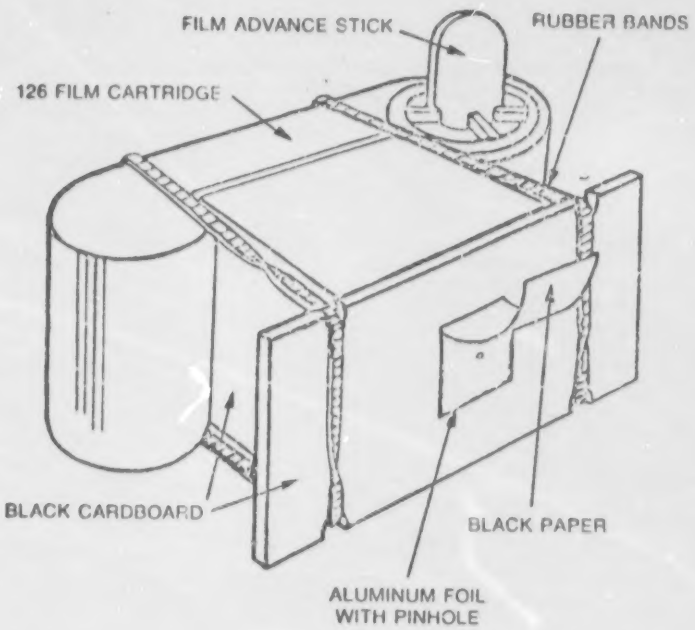


HOW TO MAKE A PINHOLE CAMERA

This interesting project helps you to understand how a camera works.

MATERIALS

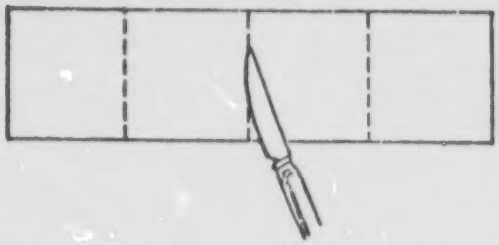
1 cartridge Kodak Verichrome pan film 126
1 piece black cardboard, 1 1/4 by 5 3/4 inches
1 piece black cardboard, 1 1/2 by 2 3/4 inches, with 1/2-inch square opening cut in center
1 piece aluminum foil, 1-inch square
1 piece black paper, 1-inch square
1 wooden tongue depressor
2 rubber bands
1 No. 10 sewing needle
black masking tape



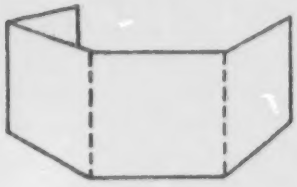
MAKING THE CAMERA

1. Measure and mark the large piece of black cardboard into four sections, each 1-7/16 inches wide.

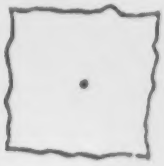
2. Using a knife, cut through the top layer of cardboard along each of the lines. This will make it easier to fold the cardboard. Don't cut yourself!



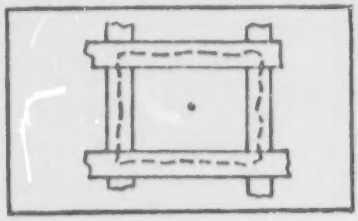
3. Fold the cardboard into a box and tape the edges together with the black tape. This is your camera box.



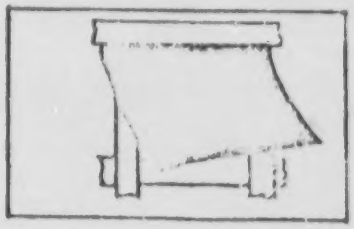
4. Using only the point of the sewing needle, make a very tiny pinhole in the center of the aluminum foil.



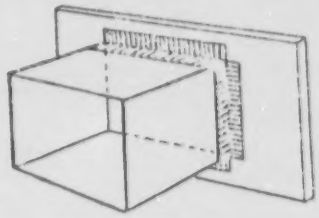
5. Center the pinhole in the foil over the square opening in the small piece of cardboard. Tape the foil to the cardboard on all four edges.



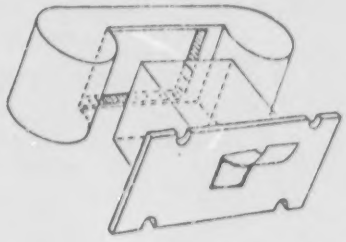
6. Put the small piece of black paper over the pinhole and tape it along the top edge.



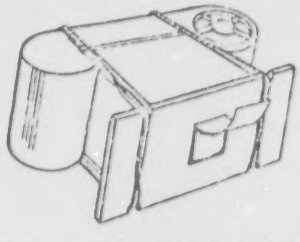
7. Tape the small cardboard to the box. Use plenty of tape and make sure all the edges are taped together so no light can get into the camera box.



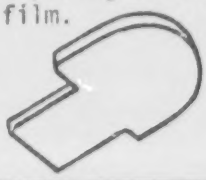
8. Put the camera box into the square opening in the film cartridge. This should be a tight fit so that no light can get into the camera.



9. Use the two rubber bands to hold the camera and cartridge in place.

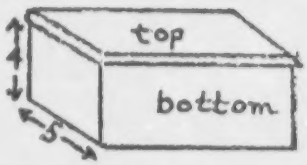


10. Trim the wooden stick so that it will fit the round opening in the cartridge and turn the film.



SIZE 10 1/2 DOUBLE-E SPECIAL DELUXE SHOEBOX CAMERA

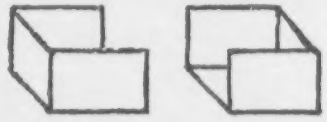
Build yourself the Nikon or Pocket instamatics of the 80's, the 1880's -- a genuine shoebox camera for people with big pockets.



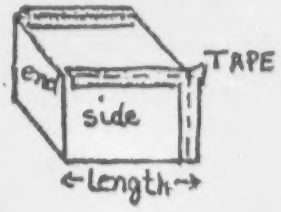
MATERIALS:
1. Shoebox with the ends at least 4" x 5"
   -- a little smaller like 3" x 5" will do
   -- the sturdier the better
2. Black construction paper
3. Masking tape
4. Black tape -- plastic, electrical or photographic masking tape
   -- friction tape is not sticky enough
5. Scissors (a matte cutter-razor knife is helpful)
6. Aluminum foil
7. Small needle -- a #10 sewing needle if you can find one
   -- or when you buy a big pack of 60 needles for 45¢ use the smallest size needles only or ask someone in some machine shop to measure the diameter of the needle at its midpoint with a micrometer. Something around 0.020 inch (.018 - .022) will do fine.
8. Ruler
9. White glue
10. Black spray paint (flat not glossy) will help

ASSEMBLING PROCEDURE:

A. Cut the box bottom exactly in half like so.



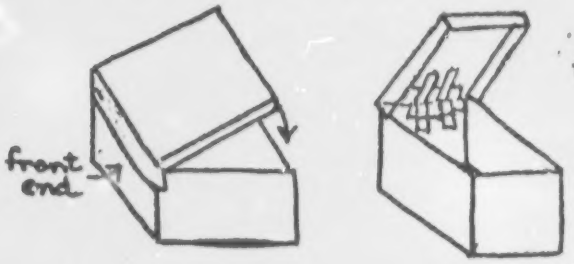
B. Fit them together using masking tape. Use black tape where light has the slightest chance of getting in, such as in the corners.



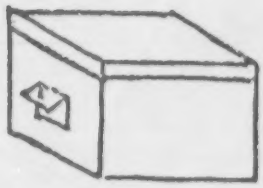
C. Measure the length of your new compact box bottom and add one inch to this length--cut your box top to this length.

D. Place the lid on the box bottom. Cut the two overhanging corners as in the picture and fold along a line so that the lid will fit snugly over the box bottom.

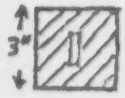
E. Tape the folded flap onto the box bottom with black tape on the outside and inside. Reinforce with masking tape. The front end of the lid is now taped permanently to the front end of your camera.



F. SHUTTER -- shutters let light in and keep light out.

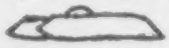


Make a flap in the front of the camera by cutting all the way through three sides of a one inch square drawn in the center of the front end of the camera. Fold outward on the top side of the square as in the diagram.

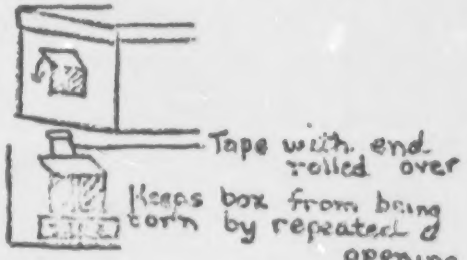


With the left-over box top, cut out a 3" square and put a slit 1/4" x 1" in it like so:

A razor knife helps in cutting both the slit and the flap.



Glue this 3" square to the inside of the front end so that the slit is centered in the flap opening like so:

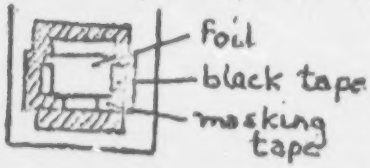


Add a piece of masking tape to the shutter flap and a piece to the box where the flap is going to be taped closed.

G. Blacken the inside of the camera with black construction paper, glued on. Leave a 1" square hole in the front end so light can come in. You can touch up with a black marker or spray paint.

H. PINHOLE (1) On the inside add permanent strips of black tape around the shutter slit like in the picture. This keeps the paper from ripping in case you want to change the piece of foil with the pinhole (which we're coming to).

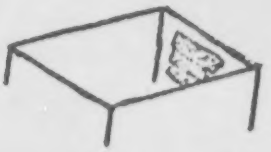
(2) Tape a 1 1/2" square piece of aluminum foil (shiny side against box) to the permanent pieces of tape already inside the front end.



If flat black spray paint is available, spray the foil lightly.

(3) From the outside of the box, take the needle between the middle finger and thumb and carefully pierce a hole by pushing the needle as straight as you can halfway through the foil. Slowly rotate the needle to get a smooth round hole. Carefully withdraw the needle without widening the hole.

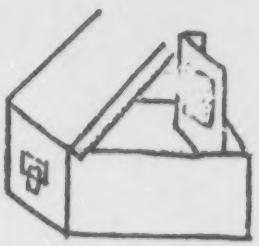
I. PAPER NEGATIVE HOLDER



(1) Add 3 permanent strips of masking tape to the inside of the back end of the camera.

(2) Roll up 2 pieces of masking tape sticky-side out, and attach them to the permanent tape like so:

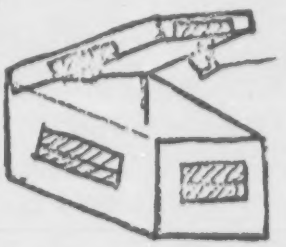
This will hold your pieces of printing paper to be used as negatives.



(3) The distance from negative to pinhole can be adjusted closer by folding a piece of cardboard as in diagram and using it as your negative holder. This should be taped in.

J. CLOSURES

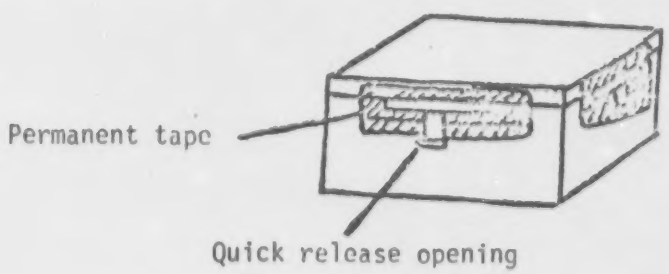
Add permanent strips of masking tape to the sides of the box bottom and lid.



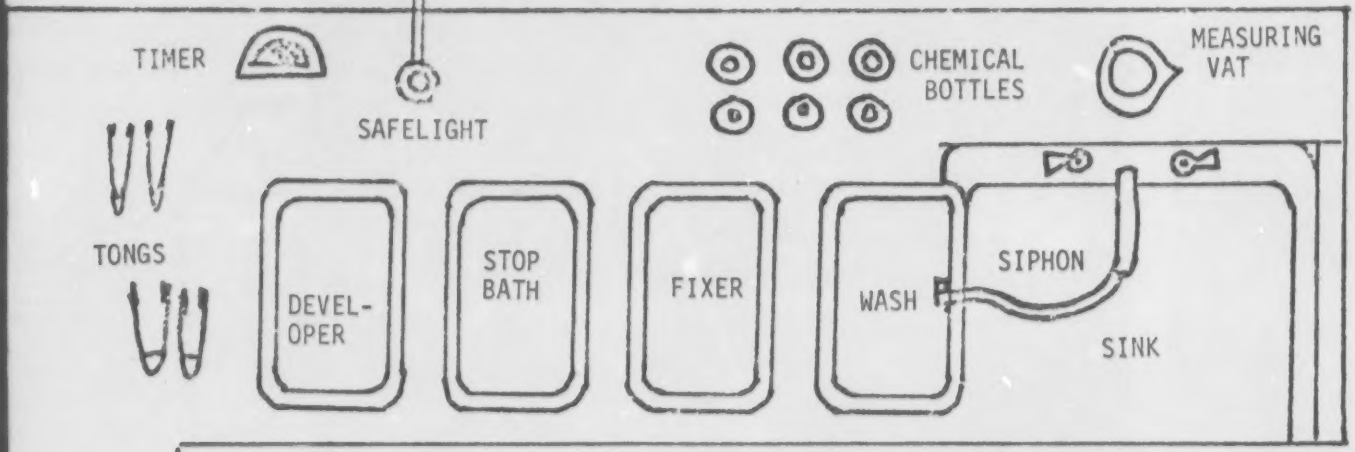
Add a vertical strip of tape to the camera lid with the end rolled or folded over on itself.

Add another horizontal strip of tape over each of the vertical ones so that half of it will stick to the lid and half to the box bottom.

To quickly open each side, pull on the vertical piece of tape. This will lift the horizontal piece also.



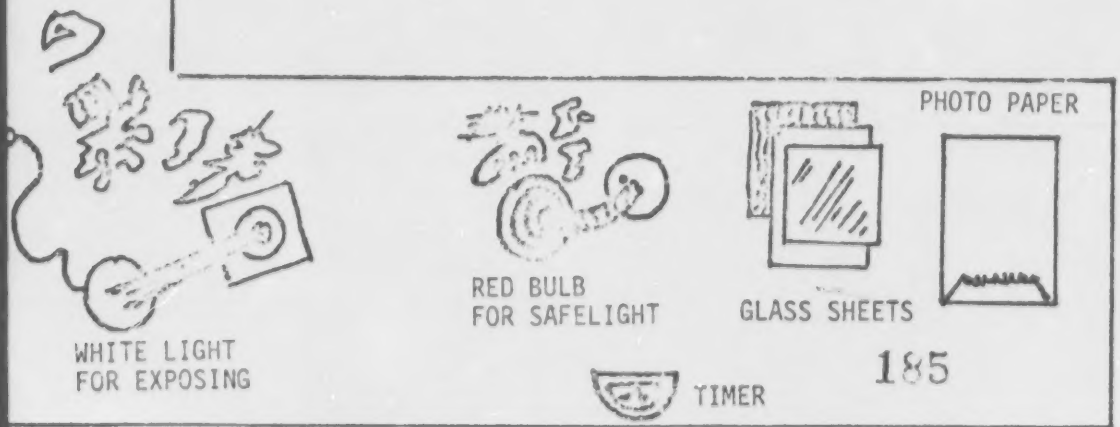
MAKESHIFT DARKROOM



ARRANGEMENT FOR A MAKESHIFT DARKROOM . . . . . .

NOTE: "WET AREA" INCLUDING SINK AND TRAYS OF CHEMICALS IS SEPARATED FROM "DRY AREA" WHERE PAPER IS EXPOSED.

DESIGN ITEMS



GLOSSARY

ACETIC ACID	The acid used in dilute form for short-stop or stop-bath, to stop the action of the developer in the processing of prints. It is sometimes used in film processing but is not recommended. Acetic acid is also used in some fixers or hypo as in emulsion hardener for photographic paper.
ANGLE OF VIEW	The area covered by a lens on a camera, expressed in degrees, and determined by the focal length of the lens.
APERTURE	The size of the lens opening in camera or enlarger, normally controlled by an iris diaphragm, which determines the amount of light passing through; indicated by the 'f' number - the lowest number indicates the widest aperture.
ASA	Initials of the American Standards Association which standardized the speed or light sensitivity of photographic films now known as ASA ratings.
ASA NUMBER	Number that indicates the speed of the film.
AVAILABLE LIGHT	Natural or artificial light that is already there when you arrive on the scene.
BACKLIGHT	Illumination from a source behind the subject as seen from camera position, which tends to silhouette the subject, and may also dramatize it.
BAS-RELIEF	A three-dimensional effect in a photographic negative resulting from a second exposure to white light during development. The double exposure produces positive and negative images on one negative. The term "solarization" refers to this darkroom technique, the results of which are largely unpredictable.
BOUNCED LIGHT	Light reflected from a surface, such as a ceiling, wall, or photographic umbrella, in order to diffuse and soften its effect on the subject.
BROMIDE PAPER	Photographic printing paper coated with an emulsion containing silver bromide; insensitive to red or orange light.
BURNING IN	When making an enlargement, increasing exposure time for one small area of a negative.
CAMERA	An instrument by which photographs are made, consisting of a light-tight box fitted with a lens, a shutter, a film compartment, and various controls for precise operation. From the Latin word for room.

CARTRIDGE	A metal container, primarily for 35mm film, with removable end pieces. Sometimes called a cassette, a term more often applied to special reusable cartridges.
CASSETTE	A metal container (usually designed to hold lengths of 35mm film) which can be used repeatedly. Cassettes are made specifically for a particular camera and will not normally work in any other brand.
COMPOSITION	The way the elements in a photograph are arranged in relation to each other within the frame.
CONTACT PAPER	A photographic paper, one side of which is coated with silver chloride, used in making prints from a negative of the same size with a contact printer; light designs may be made with the printer, with or without a negative, or by placing objects directly on contact paper and exposing it with white light.
CONTACT PRINT	A print made on paper (or film) by perfect contact between the emulsion of the negative and that of the paper (or film).
CONTRAST	Difference between the lightest and darkest tones in a print or negative.
CONTRAST GUIDE	A system of numbers to describe contrast characteristics of photographic papers; the scale ranges from 0 through 6, with 2 as normal contrast, lower numbers indicating lower contrast, and higher numbers for higher contrast.
CROPPING	To trim or eliminate subject matter along the edges of an image in order to improve composition. A negative may be cropped when it is enlarged, and a slide may be cropped by masking along one or more edges.
DARKROOM	Light-tight room in which you process film and make prints and contact sheets.
DENSITY	The quality of opacity in a negative or slide describing its capacity to transmit light. Density occurs in areas of heavy silver deposits or deep color saturation.
DEPTH OF FIELD	Area in a photograph that is sharp in focus.
DEVELOPER	A chemical solution that converts silver halides affected by light from a latent or invisible image into a visible image in film or paper.
DIAPHRAGM	Camera mechanism used to control the amount of light that strikes the film.

DODGING	The process of masking an area of an image during enlarging or contact printing in order to reduce exposure and lighten that area.
DOUBLE EXPOSURE	Two or more images on one frame of film or piece of photographic paper; produced intentionally for reasons of composition and content, or accidentally in certain inexpensive cameras.
DRY MOUNTING	A method of mounting a print on cardboard by placing a thin sheet of dry mounting tissue between them and applying heat and pressure in a dry mounting press. Dry mounting tissue is a safe and precise and chemically inert adhesive for photographic prints.
EASEL	A device, usually made of metal, in which photographic paper is held flat and in position for making an enlargement; an easel may have two or more adjustable borders, or it may provide borderless prints.
ELECTRONIC FLASH	Supplementary light source that is charged from either an electrical outlet or a self-contained battery pack. Also called a speedlight.
EMULSION	A deposit of light-sensitive chemicals (silver halides) on photographic papers and films held in suspension in gelatin. Under suitable conditions of exposure to light, an image is formed in the emulsion.
ENLARGER	A piece of equipment designed to project an image from a negative or positive material onto a sensitized paper or film. A light source, negative carrier, and lens can be adjusted closer to, or farther from, the paper that is usually held in an easel.
EXPOSURE	The effect of light, according to its intensity and duration, on a photosensitive material, such as film or paper. The word is also used to symbolize the act of taking a picture.
FAST	A term used to describe films or papers highly sensitive to light, or lenses of large apertures.
FILM	A sheet or roll of thin material coated on one side with a light sensitive emulsion capable of recording an image when exposed in a camera.
FILM SPEED	Time it takes for the emulsion on film to react with light to form a latent image.
FILTER	A piece of glass or other transparent material, usually colored, used to absorb certain wavelengths of light and block others; filters are used for photographic effects or correction to suit a specific film and light source.

FIXER	A chemical solution which clears prints and films of chemicals that cause stains; also hardens the surface (emulsion) to prevent scratches.
FLASH	A term used for an instantaneous light provided by a flashbulb or cube or an electronic flash unit; flash is usually synchronized during exposure by camera mechanisms.
FLAT	A term used to describe a low-contrast image in a print or negative. May also refer to a large, free-standing, portable panel, usually painted white and used as a reflector in a photographic studio.
F-NUMBER	A number used to indicate the size of a lens opening. The larger the f-number, the smaller the opening or aperture. Interchangeable with the word f-stop.
FOCAL LENGTH	The distance between the lens and the point where the image is formed on the film when the lens is focused on infinity.
FOCUS	The adjustment of a camera lens to provide an image that is sharp on the focal plane. Also, the convergence of light rays to a point.
FOG	A hazy darkening of a negative or print caused by extraneous light or chemical action. Fog may be caused by light leaking into a film holder or cartridge, by using outdated film, or by storing film in hot, humid conditions.
GLOSSY	Describes a printing paper with a smooth surface, suitable for ferrotyping. A print with a mirrorlike luster such as is produced by ferrotyping.
GRADUATE	A container, usually glass, enamelled steel, stainless steel or plastic, which is calibrated in fluid ounces or milliliters, or both, for use in measuring liquid volumes.
GRAIN	The thousand of tiny dots in a photograph that make up the image.
GUIDE NUMBER	A number used to calculate the f-setting (aperture) that correctly exposes a film of a given sensitivity (ASA rating) when the film is used with a specific flash unit at various distances from flash to subject. To find the f-setting, divide the guide number by the distance (usually in feet).
HARD	A term that describes high contrast in an image, or connotes harshness of lighting.
HIGHLIGHT	The bright accent in a subject itself, or the brightest areas of a photographic print or slide. A highlight is often rather small, and is represented by the most dense spots in a negative.

HYPO	A common term for the fixing bath used to stop development and dissolve undeveloped silver salts remaining in photographic negatives or prints. The term is derived from the original chemical, sodium hyposulfite, which is part of the fixing solution.
HYPO ELIMINATOR	Also called hypo clearing bath, hypo eliminator is a solution that speeds the removal of fixer from films and papers, and thereby saves washing time, and reduces the amount of water needed.
INCIDENT LIGHT	The light falling on a subject from any direction.
IMAGE	The visual representation on photographic film or paper of a scene or subject recorded by a camera; sometimes used to describe the visual impression received through the camera viewfinder.
INSTAMATIC	Most inexpensive and easiest to operate of all cameras. Can be bought for less than $25.
LATENT IMAGES	The invisible image upon and within a photographic emulsion before it is developed.
LENS	A single shaped piece of optical glass or molded plastic, or an assembly of such pieces (called elements), designed to gather and focus light rays in a camera to form an image of a subject on film, or in an enlarger to form an image on paper. Simple cameras may have one or two element lenses and more complex cameras have lenses with many elements.
LIGHT METER	Instrument specifically designed to "read" light and give you correct exposure information.
LONG LENS	Another name for a telephoto lens or one that is twice or more the focal length of a normal lens.
MASKING	The process of blocking out areas of an image or its edges with opaque pigment or tape.
MATTE	A term used to describe a nonglossy surface, usually of photographic paper; the surface may be fine or noticeably textured.
MONTAGE	The combining of selected prints for making a composite design by cutting and mounting them together, or by sandwiching black and white negatives or color positives between glass for printing or projecting. The resulting design: a photomontage.
MOTTLE	A mealy gray area of uneven development in a print or negative. Caused by too little agitation or too short time in the developer.

NEGATIVE	Exposed film on which the latent image has been developed. The tones of a negative are reversed; that is, light tones appear dark and dark tones appear light.
NEGATIVE CARRIER	A frame that holds the negative in an enlarger so it can be projected.
NORMAL LENS	Any lens with a focal length approximately equal to the diagonal measurement of the image on film within the camera on which it is used.
ORTHOCHROMATIC	A photographic emulsion that is sensitive to all colors but red.
OVERDEVELOP	To give more than the normal amount of development.
OVEREXPOSURE	Condition caused by letting too much light fall on film or printing paper.
PAN	To rotate a camera synchronized with a passing subject during exposure, so that the subject remains relatively sharp, but the background is blurred. Also a short term for panchromatic.
PANCHROMATIC	A photographic emulsion that is sensitive to all colors of light.
PAPER NEGATIVE	A negative image made on paper rather than film, either in the camera or by projection in the dark-room. May be contact printed to make a paper positive.
PARALLAX	The degree of difference between the viewfinder image and the image actually recorded by the lens of a camera, due to their varying axes. Parallax error does not occur with through-the-lens viewing.
PHOTOGRAM	An image made by placing objects on a sheet of paper (photographic) and exposing it to light.
PHOTOMONTAGE	A composite image made by cutting out and assembling parts of several photographs.
PINHOLE CAMERA	A camera with a tiny hole in place of a lens, made in various shapes and sizes for experimental purposes.
POLARIZING FILTER	A disc of glass designed to reduce reflection and alter the appearance of sky or surfaces by affecting certain polarized light rays without altering color. Also called a polarizer or pola filter.
POLAROID	Type of camera that processes the print in the camera itself, and delivers the print within minutes after you shoot the photograph.

POSITIVE	Any image with tones corresponding to those of the subject. Opposite: Negative.
PRINT	An image, usually positive, on photographic paper.
PROCESS	The sequence of chemical steps used to develop and fix films or papers in the photographic idiom.
PROJECTION PRINT	A print made in an enlarger in which an image is projected to a sensitized material, as opposed to a contact print.
PUSH	The term used to indicate increased film developing time, i.e., to push or force development to compensate for under-exposure.
RANGEFINDER	An optical device used to focus a camera lens in which two images are made to coincide precisely when a subject is in focus.
RC PAPER	Resin-coated printing paper which is made with a special base that limits absorption of liquid, providing for accelerated washing and drying.
RECIPROCITY LAW	A law which states that exposure varies uniformly with changes in either time or intensity.
REEL	The metal or plastic holder with a spiral track into which film is loaded for development in a small tank.
REFLEX CAMERA	A type of camera in which the image gathered by the lens is reflected to a mirror and onto a ground glass for viewing. In a single-lens reflex, a prism may be used to correct the left-to-right orientation of the image.
REFRACTION	The property of light that causes light rays to bend when they pass through glass.
REGISTER	To superimpose images so they are aligned precisely. Colors or shapes not so aligned are said to be off-register or out of register.
RETICULATION	A pattern of fine wrinkles in a negative caused by temperature extremes during processing, or by adverse chemical effects. The phenomenon is rare with normal darkroom practice.
SABATTIER EFFECT	The partial reversal of an image in a film emulsion caused by brief exposure to light during development; often referred to as solarization, which is not technically correct.
SAFELIGHT	A lamp of low wattage and suitable color which is used for (reduced) illumination in the darkroom without exposing certain light-sensitive films and papers. Note manufacturer's recommendations for use of a safe light.

SEPARATION	The distinction between light and dark tones in an image. Also, the process of recording three primary colors on black-and-white films through the use of filters for color printing such as dry transfer.
SHORT LENS	A lens of less-than-normal focal length; also called a wide-angle lens.
SHUTTER	A mechanism that opens and closes within a camera to provide the time interval necessary for exposure. Time intervals are called shutter speeds.
SHUTTER SPEED	The length of time the camera shutter is open letting light fall on the film.
SILHOUETTE	A scene or photograph in which the background is much more brightly lit than the subject.
SLR	Single-lens reflex camera; a compact camera with a through-the-lens viewing system.
SOFT	Describes an image that is not sharp or in precise focus. Also refers to an image or a photographic paper of low contrast.
SOLARIZATION	The reversal of an image, often caused by extreme overexposure, the term used popularly, but not precisely, for the Sabattier effect.
SPOTTING	The process of painting out tiny spots or defects in a print using a special dye and fine brush; dark spots are eliminated by etching the emulsion to blend the defect into its surroundings. An etching knife or tool is used.
STOCK	A concentrated form of a chemical solution which is diluted for use. Also the base or support material, such as paper, on which sensitized emulsion is coated.
STOP BATH	A diluted solution of water and acetic acid that stops developing action, particularly of prints, before they are transferred to the fixer. Also called short-stop.
STOP DOWN	To reduce the size of a lens aperture for decreased exposure.
STOPPING ACTION	Arresting motion in a moving subject by using a fast shutter speed.
TACKING IRON	A small, electrically heated, thermostatically controlled tool used to tack or attach dry-mounting tissue to the back of a print or to the mount board, so as to hold it in place while the print is being trimmed and heated in the dry-mount press.

TANK	A light-tight container made of metal or plastic in which film is placed on reels for processing. Also larger containers without tops for processing sheet film.
TELEPHOTO LENS	Has a long focal length that brings far away objects close and magnifies them. Also called a long lens.
TEST STRIP	A strip of paper on which one or more separate exposures are made to determine the correct exposure, especially for an enlargement.
THIN	A term used to describe a negative of low overall density.
TIME AND TEMPERATURE	The two factors that vary in the development process for film or paper. Manufacturers provide charts of time and temperature relationships which photographers revise according to their own needs and experience.
TIME EXPOSURE	An exposure usually longer than one second, the longest camera-activated interval on most cameras, after which the photographer must time the exposure by using a watch or counting. Some cameras with electronic shutters make automatic time exposures from a few seconds to one minute.
TONER	A chemical solution used to tint a black-and-white print; the most common toners are sepia and selenium blue.
TRANSPARENCY	The common term for a color slide which is viewed by transmitted light, such as by projection.
TRIPOD	Three-legged camera support.
TUNGSTEN LIGHT	A general term for artificial illumination from any source; derived from the use of tungsten filament in photoflood bulbs.
UNDERDEVELOP	To give less development than normal.
UNDEREXPOSURE	Condition caused by letting too little light fall on film or printing paper.
VALUE	The degree of darkness of a gray tone or a color in a print, negative, or slide. The value scale ranges from highlight white to deep black.
VARIABLE CONTRAST PAPER	A type of printing paper with which contrast may be altered by the use of VC filters calibrated in separate grades of contrast.

VIEW CAMERA	A type of camera in which the image is viewed on a ground glass set opposite the lens and usually connected by a bellows. A view camera must be used on a tripod; the image is upside down, but allows precise composition and focus because of its size.
VIEWFINDER	A device on a camera through which the subject is seen and framed.
VIEWING SYSTEM	Camera mechanism through which you look to see and focus the image you are going to photograph.
VIGNETTING	A term used to describe the gradual shading off of an image at the edges resulting in a soft edge and no definite border line.
WASHED OUT	A term describing a pale, gray, or pastel image lacking detail in both highlights and shadows, usually caused by overexposure in a slide and underexposure in a print.
WETTING AGENT	A chemical solution used after washing film. By reducing the surface tension of the water remaining on the film, it speeds drying and prevents water spots.
WHITE LIGHT	Generally used (as distinct from safelight) to refer to any light which is capable of exposing an emulsion. Also, in color photography, it describes light of a Kelvin Temperature suitable for use with a particular emulsion type.
WIDE-ANGLE LENS	Short focal-length lens with an angle of vision wider than that of the eye.
WORKING SOLUTION	A chemical solution mixed from stock and ready to use.
ZONE FOCUS	To preset the focus of a lens so that some future action will take place within the limits of the depth of field.
ZOOM LENS	A lens with moving elements that provide a continuous adjustment of focal length within its designed limits.

VISUAL ART FOR THE HANDICAPPED

The many values of visual art experiences for normal children are equally valid for those with handicapping conditions. The emphasis for the handicapped student, however, should first be on the process value of the creative art experience as it contributes to the student's overall physical, intellectual, social, and emotional development.

Through practice, a handicapped child can develop mastery of tools, materials, and processes. He thus learns the joy and pleasure of skill development, and can feel pride in a product made completely by himself. He can give this product to others and at times contribute a sense of beauty to the world. This kind of productive-creative experience can help promote a positive self-image for the handicapped child, often the needed springboard for the development of life-coping skills in other areas.

It is now recommended that wherever possible, the handicapped student be "mainstreamed" into the general education class, including the visual arts courses. This will require a special understanding and effort on the teacher's part, and where possible, additional training; for the handicapped child may not be easy to work with. However, the rewards can be immense. It may require more energy to empathize, more imagination to find a way for the child to have independence and personal definition in and through art. It may require much patience and much time for the learning to show. But to help the handicapped student become himself is a rewarding experience, one that enriches the teacher as well.

A comprehensive orientation and/or preparation of the non-handicapped students should be implemented so that they are aware and sympathetic to the possible differences in pace and accomplishment of the handicapped student. The teacher should also be advised by the special education staff as to the nature of the handicapped student's impairment. It would also be highly advisable that a specially selected student or adult teacher aide's assistance be implemented when handicapped students are "mainstreamed" into the regular art class. It is possible that community artists willing to work with the handicapped could be found to serve as these aides.

It is important that the handicapped child have art, in spite of and because of his disabilities. These disabilities may make it harder for him to use art materials than the "normal" child. Yet his need for self-expression, for pleasure, for challenge, and for creating something which is uniquely his are great. So, in spite of his problems, the handicapped child deserves the most intensive, extensive, and creative art activities which can be provided. Every district in Idaho should provide such activities and should include works of art by the handicapped in all exhibits.

GLOSSARY

ABRASIVE: Material used to smooth, clean or polish, such as sandpaper or steel wool.

ABSTRACT: A type of art derived from realism but stripped of most or all details, leaving only basic esentials by the use of lines, shapes, colors, and textures. It also may include art executed without reference to actual objects.

ACCENT: Emphasis placed on one area of a composition.

ACTION PAINTING: Impulsive painting, letting chance take precedence over deliberate planning; on-the-spot creativity.

ADHESIVE: Any substance used to bond two things, such as glue, or rubber cement.

AESTHETICS: Sensitivity to beauty and art. The philosophy of beauty.

ANALOGOUS COLORS: Those colors situated next to each other on the color wheel.

AREA: Any surface.

ARTIST: One who works with sensitivity in the arts such as painting, sculpture, graphics, ceramics, etc.

ARMATURE: A framework of wire or wood used inside a piece of sculpture to support it until the substance of which it is made hardens or becomes firm.

ARRANGEMENT: An orderly design or array of shapes, lines, or objects.

ASYMMETRICAL: Having a visual balance not derived from symmetry. Containing dissimilar sizes, shapes, colors, etc., on the opposite sides of an axis or middle line.

AWARENESS: Sensitivity to surroundings.

AXIS: An imaginary line passing through a design, building, etc., around which different parts are disposed. In drawing or painting, an imaginary line expressing the dominant direction of any object or arrangement of objects in the composition.

BACKGROUND: Those portions or areas of a composition which are in back of the primary or dominant subject matter or design areas.

BALANCE: Equilibrium established by harmonious arrangements. The counterpoise of visual weights of values and shapes in a design.

BALSA WOOD: A lightweight wood used for carving and making models.

BAS-RELIEF: Sculpture in which the figures project but slightly from the background.

BATIK: A process of covering certain areas of cloth with wax in a design before dipping the fabric into dye. When the wax is removed by a warm iron, the area covered by it is exposed, revealing the original color of the fabric.

BINDER: Material that holds paint pigment together.

BISCUIT FIRING: The first firing of clay objects which hardens them.

BISQUE: Clay hardened by exposure to high temperature and nonglazed.

BLEEDING: When colors run together.

BLOCK LETTERS: Simple angular letters of uniform width frequently used for posters.

BLOCK PRINT: A design cut into any material such as linoleum or wood for reproduction purposes. Also a product of this process.

BLOCKING IN: Initial dividing of a surface in planning a composition.

BLOW PAINTING: Blowing thin paint on a surface either directly or with a straw.

BORDER: Repeated design in horizontal or vertical strips.

BRAD: A thin, small-headed nail, often a finishing nail.

BRAYER: A small roller, usually of rubber, for inking blocks, type or plates by hand.

BURLAP: A coursely woven textured cloth, usually of jute.

CALLIGRAPHY: Beautify handwriting or penmanship.

CANVAS: material used for a painting surface, usually stretched on a frame.

CARDING: A process of brushing fibers so that they become soft and rather straight.

CARICATURE: A descriptive picture marked by ridiculous exaggeration or distortion.

CARTOON: A preliminary drawing for a painting. Also a sketchy picture or caricature.

CARVING: The art or craft of making designs or sculpture by cutting or chiseling.

CASEIN: A heavy, water-soluble paint with a milk base.

CENTER OF INTEREST: The part of a composition first to attract attention

CERAMICS: The term used for the art of molding, modeling, and baking objects in clay.

CHALK: Similar to pastels, with a limestone base, used to apply color.

CHARCOAL: A type of pencil or stick used for drawing obtained by imperfect combustion of organic matter, usually wood.

CHASING: A method of ornamenting metal or other surfaces by engraving or indenting it.

CHIAROSCURO: The distribution of lights and shades in a picture. A style of art using only light and dark.

CHISEL: A cutting tool with a beveled edge used for cutting, engraving, or carving.

CHROMA: The relative purity of a color. Color intensity.

CLAY: A natural earthy material, plastic when wet, that is used for pottery or modeling.

CLOISONNE: A method of enameling in which strips of metal or cloisons are soldered to a base, forming cells into which enamel is poured and fused.

COIL METHOD: A process of making pottery by rolling long, thin, pieces of clay which are used to build up the sides of bowls or containers.

COLLAGE: A composition in which such textured materials as paper and cloth are attached to a flat surface, sometimes in combination with drawing or painting printed matter.

COLOR: A sensation evoked as a response to the stimulation of the eye and its attached nervous mechanisms by radiant energy of certain wavelengths and intensities.

COMPLEMENTARY COLORS: Those colors opposite each other on the color wheel, which when mixed together in equal amounts, produce a neutral tone.

COMPOSE: To arrange into a composition.

COMPOSITION: The art of combining the parts of a work to produce a harmonious whole. The way in which areas of a drawing or painting relate to each other.

CONE: A mixture of clay and glaze with a predetermined melting point used to time firings or ceramics in a kiln.

CONNOISSEUR: One who is a competent critical judge of anything.

CONSTRUCTION: The three-dimensional arrangement of two or more forms into a built-up design using wire, wood, or a variety of materials.

CONTOUR: An outline or border creating the illusion of mass in space.

CONTRAST: The opposition or unlikeness of things compared.

COOL COLORS: Those colors suggesting a sense of coolness such as green, blue and violet.

CORRELATION: A relationship between things that are so connected one implies the other.

CRAFTS: The practical applied area of art involving skill in structuring or handicrafting.

CREATIVE: Using imagination to produce something new out of existing materials. Having the desire to create.

CRAYON: A slender pigmented cylinder used for drawing or marking, usually made of wax.

CRAYON-RESIST: The use of crayon drawing over which watercolor is applied. The wax binder in the crayon rejects the watercolor.

DAMASCENE: To inlay metal with another kind of metal or other material for decorative purposes.

DAPPING TOOL: A small tool used in metal craft. It has a ball point made of steel in various sizes. To fit indentations of a dapping block, the metal is shaped between the two.

DECORATIVE: Intended to decorate rather than represent actual objects or express profound ideas.

DECOUPAGE: Decorating surfaces with glue, paper prints, or thin cloth.

DIORAMA: A small, scenic representation with diminutive three-dimensional figures and landscape objects in front of a painted backdrop. Often enclosed in a small box, illuminated, and viewed from a small opening.

DOMINANCE: A governing design principle or point of emphasis in a work of art, possessing ascendancy over other factors in the design.

DRAWING: The act of creating a picture by means of an arrangement of lines made with a marking instrument such as a pencil, crayon, charcoal, pen, or brush. Also, the picture so-created.

DRYBRUSH: A method of painting in which as little paint as possible is used so the brush strokes leave paint on the right spots of the paper.

DRY-MOUNT: Method of mounting compositions using heat, pressure and dry mount tissue.

EASEL: Frame or support for a surface to be painted.

EASEL-BRUSH: Long-handled brush.

ELEMENTS OF DESIGN: The alphabet or scale of graphic expression. The basic ingredient of any design or organization of space.

ELLIPTICAL: Pertaining to an ellipse or foreshortened (perspectively flattened) circle.

EMBOSS: To decorate or embellish the surface with a raised design.

ELEVATION: A drawing, showing no perspective, of the front, side, or rear of a building.

EMBROIDERY: The art of decorating a fabric, paper, or other pliant material with raised needlework designs, using colored threads or metallic threads and other fibers.

EMPHASIS: Stressing or calling attention to some part of an arrangement. Emphasis implies both dominance and subordination.

ENAMEL: Prefired glass which is ground to a powder applied to metal surfaces, and refired and fused to the surface by exposing to extreme heat in a kiln.

ENCAUSTICS: The art of painting with colored wax which is fused to the painting surface by exposure to heat.

ENGOBE: Variously colored clays which are thinned to a creamy consistency and used as a surface decorating slip on ceramic objects.

ENGRAVING: The process of scratching a line design into a metal plate with a stylus, rubbing ink into the lines, and printing the design on paper.

ESTHETICS: Philosophy, theory, or science of beauty.

ETCHING: An engraving process in which the lines are eaten into the metal plate by an acid.

EVALUATION: A review of an action or product to find its strengths and to determine if constructive changes are possible or necessary.

EXPERIMENT: In art, an exploratory, trial-and-error process by means of which one learns to manipulate line, color, forms, and space in various media to achieve desired results.

EXPRESSIONISM: A broadly varied term used to describe those art movements in which the artists are more concerned with the expression of motion than with the controlled design or representation.

FABRIC: A cloth made by weaving, knotting, or compressing fibers together.

FINGER PAINTING: A painting process in which a picture is formed by spreading special water-soluble paint on a nonporous paper by means of the fingers, hands, and forearms.

FINDINGS: Backings for pins, earrings, etc., in making jewelry.

FRESCO: A painting technique in which water-soluble paint is applied to a moist plaster surface. The paint sinks into the plaster, creating a permanent chemical bond.

FRIEZE: The middle portion of the classical entablature; also a band or strip of painted or sculpted decoration.

FUTURISM: An art movement originating in Italy in the early 20th century aimed to portray the movement and change in objects rather than the appearance at any specific time.

GEOMETRIC: Pertaining to the basic regular shapes of mathematics, such as triangles, squares, circles, cubes, rectangles, cylinders.

GESSO: Prepared plaster mixed with glue, used as a ground for painting or relief work.

GESTURE DRAWING: A freely and quickly sketched drawing expressing deliberate motion.

GLAZE: The thin glasslike surface generally found on pottery. Also, a thin transparent layer of paint applied over another color to modify it.

GLYCERINE: Liquid used in making water-soluable inks and also used in water when soaking reeds.

GLITTER: Fine particles of shiny metallic materials.

GOUACHE: An opaque watercolor paint which usually has a pliable adhesive with the binder to retard drying. In gouache, highlights are produced by white pigment, unlike true watercolor, where the bare white paper provides the highlights.

GRAPHIC ART: Painting, drawing, engraving, and other arts involving the use of lines or strokes upon a flat surface.

GRAYED COLORS: Colors which have been neutralized by the addition of complimentary colors.

GREENWARE: Clay objects which have been air dryed, but which have not yet been fired in a kiln.

GROUT: In mosaics, the thin mortar or plaster material used to fill in between the tesserae.

GUM ARABIC: A material used in ceramics or metal crafts to make a glaze or enamel adhere to the surface.

HALFTONE: A photoengraving process used for the reproduction of photographs, drawings, and paintings in newspapers, magazines, and books in which different values are printed as dots of varying sizes. Also the middle value on a surface.

HARMONY: Agreement among parts of a composition tending to produce unity.

HATCHING: A system for building up tones or shadows by using a series of lines at various angles, (cross-hatching).

HIGHLIGHT: A spot of bright light or high value on an object usually produced by a reflection of the source of light.

HOOKED RUG: A rug made on burlap by pulling long strips of material through and leaving small loops. It is done with a hook.

HORIZON LINE: A generally horizontal line in a picture where the earth and sky meet.

HORIZONTAL: Parallel to the horizon and at right angles to a vertical line.

HUE: That property by means of which we identify a color by name and distinguish it from other colors. For example, red, yellow, and blue are three different hues.

ICON: Literally translated, an icon is a "picture" or "image". The term is applied primarily to Byzantine panel paintings. They are usually painted in vivid egg tempera colors on a gold ground. Religious subjects predominate, and every detail of the picture is prescribed by custom.

ILLUSTRATION: A picture designed to elucidate and decorate a story, poem, or other writing.

IMPRESSIONISM: An art movement, essentially realistic, in which the painter attempts to depict the effects of light as it is reflected from objects.

INCISING: Cutting a design or picture into a smooth surface such as clay, linoleum, wood, or soap, etc., using a sharp-pointed tool.

INDIA INK: A black, permanent (non-washable) drawing ink.

INFORMAL: Irregular; emphasis on naturalism rather than on strictly ordered forms and compositions.

IONIC: An order of architecture with columns more slender than the Doric, and capitals decorated with volutes. Developed by the Greeks and adapted and altered by the Romans.

INTAGLIO: A design sunk below the surface so that an impression made from it is in relief. Used especially on gems, seals, and dies for coins. Also applied to an object so decorated.

INTENSITY: The brilliance, brightness, or dullness of a color.

INTERMEDIATE COLORS: A primary and secondary color mixed together.

KEYSTONE: The central stone of an arch, sometimes given a highly decorative treatment.

KILN: An oven (electric, gas, or wood fired) capable of reaching extremely high heats. In art, generally used to fire objects of ceramic or enameling types.

KINESTHETIC: Pertaining to the sense, which is felt in the large movement of the joints, muscles, and tendons. Hence, the free and somewhat unconscious drawing which is done by broad, rhythmic sweeps of the arm and hand.

LACQUER: While commonly used to mean a varnish, the term "lacquer" in Oriental art refers to the material which is made from the sap of the lacquer tree, Rhus vernicifera. It is indigenous to China and was brought to Japan around the 16th century. Lacquer gives wood a protective finish and has been in use since ancient times.

LAMINATE: Layers of paper, wood, etc., bonded together, usually by heat and pressure to make a tough, homologous material. Plywood is a laminated product.

LAYOUT: The preliminary plan for the arrangement of the parts of a design or picture.

LETTERING: The art of arranging letters to form words and phrases. It is a hand process done with pens, brushes, inks, etc., and should not be confused with printed letters.

LIGHT: In drawing or painting, that part of a picture which represents those areas upon which light is supposed to fall, as opposed to those areas which represent shadows.

LINE: A continuous mark made by a pencil, brush, crayon, etc., forming an element of a design as opposed to shading or color.

LINEAR DESIGN: A design, representational or abstract, composed of lines without solid areas of tone or color.

LINOLEUM: A floor covering composed of ground cork and resinous binders laid over a burlap backing. Used in art as a printed medium similar to the wood block.

LITHOGRAPHY: The art or process of drawing with a greasy medium on a smooth stone or metal surface, applying ink to the design, and printing the design in multiple copies.

LOCAL COLOR: That color which is intrinsic to the surface of an object as opposed to color reflected from other objects or sources of light.

LOOM: A framework or machine for interweaving yarns or threads into a fabric.

MALLEABLE: Material that can be shaped by rolling, hammering, etc.

MALLET: A hammerlike tool generally made of wood, leather, or rubber, rather than metal, and having a large striking surface.

MASS: In pictorial work, large areas of color, texture, or tone. In sculpture, generally large areas of solid medium as opposed to the open spaces between or around them.

MAT: A smooth or textured cardboard used to surround a picture with an unornamented area. An opening is cut in the mat slightly smaller than the picture, which is secured in place behind the mat.

MATERIALS: Anything tangible that may be used in the creation of a two or three dimensional work.

MATTE: Having a dull or nonglossy but generally uniformly colored surface.

MEDIUM: The material used to produce an art object. Also the liquid with which pigments are mixed to make them suitable for painting.

MOBILE: A kind of sculpture, in which the parts move.

MODELING: Solid forms in either sculpture or painting. Modeling refers either to the actual shaping of materials in sculpture, or the use of colors and values to represent forms in painting.

MOLD: Form from which something takes it shape. Much commercial pottery is made in molds.

MONOCHROMATIC: Using only one hue. An example of a monochromatic color scheme is one based on various tints and shades of green.

MONOGRAM: A pleasing arrangement of initials used for decoration or on seals.

MONOPRINT: A type of surface printing in which a sketch is done on glass or metal with paint or ink and then transferred by contact to paper. Only one print can be made of each design. Also called monotype.

MONTAGE: Making a composite picture by bringing together a number of different pictures or parts of pictures to form a blended whole, or composition.

MOOD: A state of mind, feeling, or heart as reflected in a work of art through color, line, form, texture and space.

MOSAIC: A picture composed of many small separate bits of clay, glass, marble, paper, etc., which are cemented to a background.

MOTIF: A salient design feature in a work of art which characterizes the work and which may occur once or repeatedly.

MURAL: A picture, generally a large one, designed to decorate a wall.

NATURALISTIC: Adhering closely to or copying forms as they appear in nature.

NEGATIVE SPACE: The unoccupied but definitely circumscribed and delimited space existing between masses and shapes in composition. For example, the hole which remains after a shape has been cut from a piece of paper.

NEUTRAL COLORS: Colors which have been grayed by the addition of their compliments.

NONOBJECTIVE: Pertaining to a picture or sculpture which neither derives from nor proposes to represent an object found in nature.

NIB: The pointed, flat, or rounded writing surface of a pen.

NUANCE: The study of color as it changes through its various shades from light to dark.

OBLIQUE: Slanting, neither horizontal nor vertical.

OBLONG: A rectangle with unequal adjacent sides.

OPAQUE: Impervious to light, not transparent.

ORIGAMI: Japanese art of paper folding.

OVERGLAZE: Coloring which is applied over ceramic glaze. Thin layers of transparent paint applied over previously applied paint to modify it.

OVERLAP: To extend over and beyond as one object extending over another.

OVERLAY: A transparent sheet containing graphic matter to be superimposed on another sheet.

PARCHMENT: Originally made from stretched animal skins. Synthetic parchment can be made from tagboard or Butcher's paper rubbed with a mixture of linseed oil and turpentine.

PAPIER-MACHE': A sculptural medium composed of wet, mashed paper with a paste binder, the consistency of oatmeal when wet, but hard and rigid when dry.

PARAFFIN: White, waxy substance used in batik and other art products. Petroleum base.

PASTEL: A ground coloring mixed with gum and formed into a crayon. a picture drawn with such crayons.

PASTELS: Highly refined and ground pigments pressed into chalklike sticks for drawing.

PATTERN: Anything designed as a guide or model for making identical replicas of an original form. The effect produced by the repetition of many small and similar design motifs on a surface.

PAYONS: Water-soluble crayons, made of pressed water color. May be used dry, dipped in water, or painted over with water.

PERCEPTION: Awareness of surroundings.

PERSPECTIVE: The art and science of representing three-dimensional objects on a two-dimensional surface by means of a complex network of straight lines and vanishing points.

PIGMENT: Substance which imports color to paints, inks, chalks, crayons, etc.

PLANE: A flat surface.

PLASTIC: A material capable of being formed, molded, or modeled, such as clay, plaster, or wax. Substances, both organic and inorganic, which are manmade and capable of being formed and molded. Description of those sculptural techniques employing plastic materials.

POINTILLISM: Neo-impressionism.

POP ART: A visual representation of something in the commercial world, which in the rendering has become vulgar in distortion and scale.

PORTRAIT: A representation of a person, generally of the face.

POSITIVE SPACE: The occupied space within an area made by shapes.

POSTER: Painted signs used to advertise simple messages. Classic posters, as those of Toulouse-Lautrec, are considered art masterpieces.

POST-IMPRESSIONISM: Movement begun by artists who objected to the lack of form in Impresssionism; who put subjective emphasis on form.

POTTER'S WHEEL: A mechanism used for spinning clay pots. A horizontal disk revolves on a vertical spindle, turning the clay as the potter's hands shape the pot.

POTTERY: A term usually applied to the coarser forms of earthenware fired in a kiln under relatively low heat. Pottery is comparatively soft, and may be unglazed lustreware, enameled ware, or stone ware. The firing has turned the entire substance into a vitreous material similar to, but heavier than, porcelain, and opaque rather than translucent.

PRIMARY COLORS: Those colors in terms of which all other colors may be described or from which all other colors may be evoked by mixture. In painting, red, yellow, blue are the primary colors.

PRIMITIVE ART: Art of primitive people with low standard of technical development.

PRINT: A design resulting from the process of inking the surface of a plate upon which a design has been incised or built up and then transferred to paper, cloth, or any other material.

PROPORTION: A ratio of parts to the whole or one part to another.

QUILL: A feather, as of a goose, formed into a pen for writing.

RAFFIA: A fiber material used in the making of baskets, mats, etc.

RAILROAD BOARD: Cardboard with smooth surface and colored on both sides.

RAZOR BLADES: Used to scrape paint, as cutting tool for scoring, to achieve a textural quality.

REALISM: The painting tradition (in any society or time) in which the artist strives to achieve a naturalistic representation of the external appearance of his subject matter.

RELIEF: In sculpture, figures which project from a background to which they are attached. Cut deeply, they are high relief; cut in a shallow fashion, they are low relief or bas-relief; sunken below the surface of the background, they are intaglio.

REPRODUCTION: Copy of painting or drawing, printed in quality.

RESIST: The application of a water-based paint (tempera or water color) over a waxed area on a paper surface.

RHYTHM: The principle of movement in design. The regular recurrance of similarities and differences which lead the viewers eye in prescribed paths through a composition.

RUBBINGS: Art produced by placing paper over textured surface and rubbed with the side of a crayon on paper to produce texture.

SAND CASTING: The process of forming plaster, molten metal, concrete, etc., in a mold or depression made in sand.

SATURATION: A property of color used to describe the intensity or brilliance of a hue.

SCALE: Relative dimensions without difference in proportion of parts, especially proportion in dimensions between drawing, map, or model and the original thing represented.

SCORING: Marking lines on paper with the pressure of objects such as nail files, backs of scissors, etc., with the purpose of using these lines as guides for folding the paper.

SCULPTURE: Carving, modeling, or structuring in a variety of medias to achieve a three-dimensional design. It may be representational or abstract.

SECONDARY COLORS: Those colors obtained by mixing two primary colors. The secondary colors are orange, green, and purple.

SERIF: A small line used to finish off a main stroke of a letter at the top and bottom for decorativeness.

SERIGRAPH: A color print made by the silkscreen process and printed by the artist himself.

SHADE: A deepened tone of a color achieved by the addition of black.

SHAPE: A two-dimensional area that defines and establishes the contour of an object. It may be positive or negative, free form, realistic or geometric.

SHED: Weaving term, formed when heddle is raised, and made up of warp threads.

SHELLAC: A varnish made of purified lac resin, used mainly to protect wooden surfaces.

SHOT: In weaving, a row of weft cords.

SHUTTLE: Pointed, smooth instrument used in weaving to carry the thread of the weft.

SILHOUETTE: The flat shape and contour of an object.

SILK SCREENING: The reproductive process wherein paint or ink is forced by the pressure of a squeegee through a stencil adhered to a stretched silk cloth. Also called serigraphy.

SIZE: Any thin, pasty substance used as a glaze or filler on porous materials such as plaster, paper, or cloth.

SKETCH: A preliminary drawing characterized by its casual and free qualities.

SLIP: Clay in liquid form, used in ceramics for casting, binding, or decorating.

SPACE: The intervals, unoccupied areas, and voids between and among objects and positive shapes in a composition.

SPATIAL RELATIONSHIPS: The relationships between negative and positive areas in a design.

SPLATTER PAINTING: A form of stencil painting in which droplets of paint are spattered from a toothbrush through or around a stencil.

SPONGE PAINTING: Painting done by dipping sponges of any size or shape into paint and applying paint to the paper directly with the sponge.

SQUEEGEE: A hard piece of rubber set in a wooden brace and used to force ink or paint through a silk screen stencil.

STABILE: A sculptural construction which remains stationary.

STARCH: Used as a base for finger painting, adhesive for tissue and collage, or mixed with tempera for transparency.

STATUE: A sculptural representation of a living being.

STENCIL: A thin sheet of paper, film, or metal, etc., cut in such a way as to reproduce a design when paint is rubbed over, around, or through it.

STILL LIFE: An arrangement of inanimate objects such as flowers, fruit, bottles, etc. Also, the drawings and paintings of the same.

STIPPLE: To paint, engrave, or draw by means of dots or small dents.

STITCHERY: Designing in a fabric or other pliant material with thread and needle; embroidery.

STONEWARE: Pottery fired to the high temperature of porcelain, but having a courser texture.

STRAW BLOWING: Process of spreading ink or paint over a surface to form a design by blowing paint through a soda straw.

STRINGPULLING: A means of achieving a decorative design by placing a string saturated with paint or ink on a piece of paper, placing another paper on top, and pulling the string out while applying pressure to the papers.

STRUCTURAL DESIGN: A three-dimensional design, generally nonfunctional. May be mobile or stabile in nature.

STYLE: That which gives a distinctive or unique quality to art.

STUMP: Short roll of paper used for blending charcoal or pastels.

STYROFOAM: Lightweight plastic material which can be carved, cut, glued for sculpture, puppets, etc.

SUBORDINATION: The relegation of certain aspects of a design to lower rank or importance compared with other aspects of the design.

SUPERIMPOSE: To place, draw, paint, or design on top of something.

SURREALISM: An art movement of comparatively recent origin in which the fantasies and unrealities of the subconscience are painted, with a startling element of reality.

SYMBOL: A visible sign which stands for and evokes a mental image of another thing which may be visible or invisible.

SYMMETRIC: Containing a balance derived from the placement of equal or similar weights, colors, forms and lines on opposite sides of a certain line.

TACKY: Paint or ink not dry.

TACTILE: Pertaining to the sense of touch.

TAGBOARD: Manila colored, strong, thin cardboard, which folds without tearing or cracking.

TECHNIQUE: Process by means of which an artist uses his media to express creative concept.

TEMPERA PAINTING: A form of painting in which the medium used leaves a matte or nonreflecting surface. Egg-yolk, figmilk, honey and certain gums may be used. Tempera is usually applied to panels over gesso (a plaster-like material), and since it is opaque, variations in value or color must often be obtained by very fine cross-hatching.

TEMPLATE: Pattern of metal, leather, or other material used for tracing designs on surface of leather or other materials.

TERRA COTTA: Low fired clay or sculpture and pottery so made.

TESSERAE: Small squares of glass or stone used in making mosaics.

TERTIARY COLORS: Citrine, olive and russett, colors made by mixing secondary colors. Orange and green make citrine; green and violet make olive; violet and orange make russett.

TEXTILE: Any woven material.

TEXTURE: Actual roughness or smoothmess of a surface or the illusion of roughness or smoothness.

THREE-DIMENSIONAL: Pertaining to a design or sculpture which has depth, width and height.

THUMBNAIL SKETCH: A small, quick sketch suggesting a larger plan or design.

TIE DYE: Dyeing process where some of the cloth is tied off with string or rubber bands to avoid the die.

TINT: A tone of color resulting from the addition of white to a basic hue.

TONALITY: The relative purity of a color as determined by the presence or absence of white, black, or another hue.

TISSUE: Brilliant high intensity paper used in mobiles, collage, stabiles, and laminated paper processes.

TONE: The general effect produced by the combination of light and dark.

TOOLING: Chasing, embossing, or otherwise adding surface relief and decoration to metal or leather.

TRANSFER: Duplicating a design by tracing it exactly and transferring it to another ground.

TRANSITION: The merging of one thing with another without a definite break.

TRANSPARENCY: A surface or quality of surface through which rays of light may pass and through which other things may be seen.

TRIADIC: Color harmony using three colors, such as a triad.

TRIPTYCH: Painting on three folding panels.

TWO-DIMENSIONAL: Having only length and width, but no thickness, such as a flat plane or piece of paper.

ULTRAVIOLET LIGHT: Light at extreme end of spectrum in the light theory, used in the detection of forgeries in paintings, and to study detail of paintings.

UMBER: A brown paint pigment, and earth pigment, reddish when wet.

UNDERGLAZE: The color and decoration applied to pottery, before the application of a transparent glaze.

UNDERPAINTING: In the preparation of a mural, the under coat which is sometimes used to avoid transparancy if paint flakes off.

UNITY: The oneness or wholeness of a work of art.

VALUE: The difference between the lightness of one or all the colors in a painting. A high value will contain much white, a low value, much black.

VANILLA: An extract used to cut down the paint odor of enamel in proportions of one teaspoon vanilla to a gallon of paint.

VANISHING POINT: In perspective, an imaginary dot on the horizon at which two or more parallel lines would appear to converge.

VARIED LINE: A line of irregular intensity and/or width used to provide character and interest to a painting or drawing.

VARIETY: Differences in lines, shapes, textures, and colors in a design.

VARNISH: Preparation with resinous base used to raise surface of wood for finish, or to retouch oil paintings.

VERMICULITE: An insulating material which, mixed with plaster or cement, produces a carving or casting medium.

VERTICAL: Upright, erect, perpendicular to a horizontal plane.

VOLUME: Space within, contained in or circumscribed by a form or design.

WALL HANGING: A fabric wall decoration.

WARM COLORS: Colors which evoke a warm psychological response, especially the reds, oranges, yellows, and other colors with admixtures of reds and oranges.

WARP: Threads that run longitudinally in the process of weaving. The warp threads are strung first on a loom.

WASH: A thin covering of water or watery paint over a surface.

WATER BASE INKS: Inks used for drawing and painting on paper and other suitable smooth surfaces.

WATERCOLORS: Water-soluble pigments which may be transparent or opaque.

WAX: Pliable substances used in batik, candle making. or as an adherent.

WEAVING: The craft of making fabric by intertwining threads, yarns, and other fibers to make a cloth or fabric.

WEDGE: A term used in ceramics to denote the pounding and cutting of clay to remove air bubbles and give the clay a smooth texture.

WEFT: The cross-threads of weaving which interlock with the warp.

WELD: A method of construction used in metal working. Two parts are fastened together by melting them with a torch.

WHEAT PASTE: Dry powdered material which makes effective and economical adhesive for classroom projects when mixed with water.

WIRE SCULPTURE: Abstract or realistic forms fashioned of wire and attached to wooden bases.

WOODCUT: A block of wood upon which a design or picture is engraved. Also the print made from the block.

WOOF: In weaving, the thread that runs across the fabric from selvage, and which interlaces with the warp.

XACTO KNIFE: Knife with short sharp blades which can be interchanged in handle. Used in stencil work, mat cutting, and other art projects.

XYLOGRAPH: Surface of a wood block is incised, and the smooth surface is covered with pigments which soak into the wood. The surface is then polished or enameled.

YARNS: Soft threads, generally composed of loosely twisted fibers of cotton, wool, linen, etc.

YELLOW LAKE: Transparent yellow pigment made from aniline dye, used in printing inks.

ZINC WHITE: Paint pigment made from zinc oxide. Non-poisonous. Also called Chinese White.

ZONOLITE: Volcanic earth formation, light in weight and accessible at garden centers. In can be mixed with wheat paste for modeling.

Z TWIST: In weaving, cords are woven in such a way that the fibers slant in the direction of a Z.

1. POWDER PAINT

Tempera Powder Paint
Put equal amount of powder paint and water in an empty container. Press a lid down and shake until the paint is thoroughly mixed. To make the paint better and go on more smoothly, add enough liquid starch or detergent to make it in the consistency of cream. To prevent a sour smell, add a little oil of cloves, wintergreen, or peppermint.

2. USING POWDER PAINT

Watercolor
For a transparent watercolor, add sufficient water to the powder paint to obtain a runny consistency. For an opaque watercolor, add enough water or liquid starch to the powder paint to make a creamy consistency.

Colored Ink
Mix enough water with the powder paint to allow it to flow easily from a lettering pen.

Oil Paint
Mix two tablespoonfuls of powder paint with turpentine or liquid starch to make a thick paste. Add varnish until the mixture is smooth. Or:

Add a few drops of glycerine and powder paint to raw linseed oil to make a thick creamy consistency. Use zinc oxide with linseed oil for a white oil paint. Or add boiled linseed oil to powder paint and stir well. Or add powder paint to liquid. Use a stiff brush.

Enamel
Add clear shellac, lacquer, or varnish to the powder paint until a desired brushing consistnecy is reached.

Wood Stain
Mix powder paint with linseed oil or turpentine until a brushing consistency is reached. To make a waterproof lacquer, mix powder paint with a gloss oil. Or rub crayons with the grain of the wood. Then rub the wood vigorously with a cloth saturated in linseed oil.

3. FIXATIVES

Sprays
Take six parts methyl alcohol and one part shellac. Mix and allow to stand overnight. Spray work lightly, using spray gun or atomizer. Spray work with milky texture of library paste and water.

Brush-on Fixatives for Chalk
The following mixtures (1,2, or 3) may be brushed on paper with wide brush or sponge before the chalk is applied. Work on wet paper must be done quickly. To retard drying, place picture on pad of dampened newspaper while working.

1. To one quart of water, add seven rounded tablespoonfuls of wheat paste. Stir well or shake in tightly closed jar.
2. Use equal parts of evaporated milk and water.
3. Use fresh buttermilk.

Fixatives for Dipping Chalk

Dip chalk into one of the following:

Water; equal parts of evaporated milk and water; Buttermilk (see above)

Fixative - Method 1
Glue (mucilage)
Water

To the glue, add enough water to make a liquid the consistency of milk. Excellent for pastello or charcoal work.

Fixative - Method 2
1 part shellac
2 parts denatured alcohol

Mix well together. Good for chalk work.

Fixative - Method 3
Gum arabic crystals
Water

Put crystals into a jar and pour in enough water to cover crystals. Allow to soak overnight. Stir and strain through old silk stocking or cheesecloth. Add enough water to make a liquid the consistency of milk. The material will spoil if stirred too long. It is better to mix only the amount needed. Good for charcoal. Spoilage can be retarded by the addition of a small amount of acetic acid.

Fixative Method 4
1 part lacquer
2 parts lacquer thinner

Mix lacquer and lacquer thinner together and spray immediately. When not sprayinging, store material in a tightly closed bottle. Works very well for all drawing media.

4. CLEANERS AND THINNERS

When using the following materials:
Enamel - turpentine acts as both cleanser and thinner.
Oil paint - turpentine serves as both cleaner and thinner; linseed oil as a thinner; soap or detergent as a cleaner.
Printer's Ink - carbon tetrachloride is the cleaner to use with the printer's varnish for thinning.
Rubber Cement - an eraser or a ball of dry rubber cement is used for cleaning, and benzene for thinning.
Shellac - alcohol serves for cleaner and thinner.
Varnish - turpentine cleans and thins.
Water-Base Paints - such as watercolor, powder paint, India ink, or finger paint. Water is best for both cleaner and thinner.

5. FABRIC CLEANERS

To remove the following:
Candlewax or Paraffin - use carbon tetrachloride.
Glue - sponge with lukewarm water.
Ink spots on fingers - rub on a little ammonia and rinse in clear water.
Grease and oil stains - use spot remover, or place material to be cleaned at least one inch deep in cornmeal or salt to remove oil.
Gum - use carbon tetrachloride.
Tar - use carbon tetrachloride or commercial automobile tar remover.

6. CASEIN - GESSO - SIZING

Casein is a powdered glue, usually made from milk. In time, it becomes waterproof or, more properly speaking, water-resistant. Technically casein is not soluble in water, but in ammonia. Commercial products labeled casein glue which are soluble in water have additions of caustic (potash or soda) and cannot be used for a medium for pigments. Caustics affect pigments. A simple formula for the preparation of ammonia casein for size and medium for tempera is as follows:

40 grams or 1 1/2 ounces (by weight) casein powder
250 cc or 1/2 pint (by weight) distilled water (1/4 liter)
10 grams or 1/4 ounces (by weight) ammonium carbonate cubes

Casein powder is made into a paste by the addition of a little water. Then add rest of water, moderately warm. Add ammonium carbonate, which has been dissolved and ground in a few drops of water and has all the lumps pressed out. As the ammonium is added, there is an effervescent and the carbonic gas escapes. Stir a little until all the foam has disappeared and the solution is ready to use.

This solution is ready for use as a size or painting medium. It will keep in a cool place for about a week. Putrid odor denotes spoilage.

Painting can be directly on plaster, if it is more than a year old. Or a size of the casein solution may first be applied on the plaster and let dry thoroughly. Pigments are first ground in water with palette knife, or glass muller, and the casein liquid is used for a medium. As in all tempera painting, experience is the thing that will teach the artist a proper balance between medium and pigment.

When dry, the casein color should not rub off. Scaling denotes too much casein, or too thick a layer of pigment. Casein is a dry tempera. Effects of form can be had only by small brush strokes or cross hatch. It allows very little blending of shade or color over a defininte area. It is particularly adapted to decorative effects, pointalism and simple flat treatments.

When painting is completed, it may be sprayed with an atomizer or spray and a 4% solution. Casein, being high in protein content, is susceptible to bacterial growth, especially when exposed to moisture. The formalin solution kills all such tendencies and also makes the casein more water-resistant. The casein tempera should be water-resistant in about three months' time. This casein may also be made with liquid ammonia, but requires more time to make. Advantages are no better.

Gesso Ground
Glue and water, 1 part gelatin glue to 16 parts water
Equal part calcium carbonate - hydrated gypsum (when obtainable)
Equal part zinc oxide white
For a two quart double boiler:
1 oz. glue (by weight)
1 pint water (by volume)
1 pint zinc oxide white (by volume)
1 pint calcium carbonate (by volume)

Dissolve glue in 1 pint water, and heat. Pour in calcium carbonate and white that has been mixed; to avoid bubbles, pour in slowly with a soup spoon.

Sizing the Panel
Give panel one size coat of glue water. Same as above. Then coat panel gesso. Gesso should be thin, and be applied with a brush. At first application, keep strokes in one direction, allow to dry for an hour. Then add four or five coats, each in a different direction.

7. FINGER PAINTING

Finger Paint Formulas

Formula 1
1/2 cup cornstarch
1 quart of boiling water
Refer to procedure below for mixing

Formula 2
1/2 cup laundry or cornstarch
1 quart boiling water
1/2 cup soap flakes
1 teaspoon of glycerine
Refer to procedure below for mixing.

Formula 3
1/2 cup laundry or cornstarch
1 quart boiling water
1 1/2 cup of soap flakes
1/2 cup of talcum powder
1 teaspoon of glycerine

The above formulas are mixed as follows:

Mix starch with enough cold water to make a creamy paste. Add boiling water and cool until it becomes transparent or glossy-looking. Stir constantly. If formula includes talcum powder, add it and stir. Let mixture cook somehat and add soap flakes, stirring until evenly dissolved. Add glycerine and stir. This mixture may spoil if you plan to store it for any length of time. The addition of one of the ingredients below will prevent this.

a. A few drops of formaldehyde
b. A teaspoon of oil of cloves and powdered alum
c. 2 tablespoons of sodium-benzoate

The above mixture many times is stored as is and the colored tempera is added as it is to be used.

Five tablespoons of the tempera is usually enough for the formula. However, if you divide the amount into small jars, 1/2 teaspoon of color for each jar should be enough. Mix the powder tempera with small amount of water before you add it to the finger paint mix. This will speed mixing. If, when you have added all the ingredients, the color is not bright enough, you may add more color.

Powder Tempera Paint

Mix powder tempera with water to the consisty of cream. Mix one color in each jar and add one drop of formaldehyde to prevent spoilage. Keep jar covered tightly when not in use.

8. TEXTILE PAINT

Mix with oil paints or tempera:
12 drops vinegar
6 drops lemon juice
3 oz. turpentine

Paint material, let dry, set colors with iron. A pressing cloth saturated with white vinegar is more satisfactory for setting colors in any medium rather than one saturated with water.

9. BLOCK-PRINTING INK

A. Oil-base Printing Ink
2 parts powder paint
1 part linseed oil
1 part varnish

Mix to the consistency of a smooth paste. This spreads on evenly, but will not dry quickly. Good for a paper with a rough-textured surface.

B. Varnish-base Printing Ink
3 parts powder paint
1 part varnish

Mix with a palette knife on glass. Use a brayer or printing roller, rolling it back and forth until the mixture is tacky before supplying it to the block. This will dry quicker than the oil-base ink and is suitable to use on non-absorbant, smooth-finish paper (can be thinned with denatured alcohol).

Block Printing Ink - Method 1
1 part boiled linseed oil
1 part varnish
2 parts powedered tempera

Heat the linseed oil, add the varnish and mix well. Stir in the desired powdered tempera color. Mixture should be the consistency of grease. Store in a closed jar. It if is necessary to clean ink from printing tools and printing block, use turpentine.

Block Printing Ink - Method 2
Powdered tempera
Glycerine

Add only enough glycerine to powdered tempera to make an ink the consistency of thick grease. This mixture is slow drying as compared to other types of printing ink.

Block Printing Ink - Method 3
Powdered tempera
Bar of soap

Shave soap into pan and add just enough water to cover soap chips and heat until soap is dissolved. Add tempera to mixture until it is the consistency of grease. Store in a closed jar.

10. SILK SCREEN FABRIC PAINT

Washable Silk Screen Fabric Paint
12 drops of vinegar
6 drops of lemon juice
3 oz. turpentine
Oil paint or powdered tempera

Mix together vinegar, lemon juice and turpentine. Add enough oil paint or powdered tempera to make a paint the consistency of very thick cream; if too thick to press through screen, add a few drops of turpentine. When paint has completely dried, press design with cover cloth dampened with white vinegar.

Silk Screen Paint
Finger paint mix
Powdered tempera

Mix enough powdered tempera with "finger paint mix" until the combination is the consistency of grease. A few drops of water may be added if mixture is too thick, and more tempera if mixture is too thin.

Silk Screen - Tempera Silk Screen Paint
Tempera paint
Soapflakes
Water

Add a small quantity of soapflakes to the tempera to give it viscosity and to deter drying. Add water only if necessary. If paint is too thick, it will clog the screen; if too thin, it will run. Finger paint of a creamy consistency can also be used.

Liquid Starch Silk Screen Paint
Liquid starch
Powder paint

Add liquid starch to powder paint until it is the consistency of light paste.

11. CARVING MATERIALS

Plaster and Dirt Mixture
1 part dry dirt
1 part molding plaster (Building Supply Houses) - about $2.65 per 100 lbs.
Water
Waxed milk cartons
Shoe boxes
Thinned soap

Sift the dirt into a pan. Add molding paper. Mix well, adding enough water to make a mixture the consistency of waffle batter. Pour this into clean half-gallon milk cartons or soaped shoe boxes and allow to set for several hours before the cartons are removed to facilitate drying. Under ordinary conditions, the blocks will dry and be ready to carve in a few days.

Girostone
Fine or coarse sand
Portland cement
Fine or coarse Zonolite (available at most building supply stores)
Plaster of paris
Water
Various combinations of these produce different textures and color:

1. 2 parts sand, 2 parts cement, 4 parts coarse Zonolite
2. 4 parts fine Zonolite, 1 part cement
3. 4 parts fine Zonolite, 1 part sand, 1 part cement
4. 2 parts cement, 3 parts coarse Zonolite
5. 4 parts fine Zonolite, 2 parts plaster of paris, 1 part sand

The dry ingredients should be mixed together in a large bowl or container and then enough water added to make a plastic mixture. After the mixture has been stirred thoroughly, it should be poured into a shoe box, packing carton, or any handy container, and allowed to set. The material takes a few days to dry and should not be handled while it is still moist.

Paraffin
Melt paraffin in a pan placed in very hot water, never directly over the fire. Pour it into another container. When it has solidified but is still soft, model it as you would any other plastic material. The warmth of the hands will keep it soft, especially if you dip your hands in warm water.

If color is wanted, shave a little wax crayon into the paraffin while it is melting. A marbelized effect is brought about by adding the wax after the paraffin is melted. Crushed colored chalk may also be added.

When the object is molded, dip it in cold water to harden. Polish the paraffin by rubbing it with a cotton cloth.

Plaster of Paris

Pour the approximate amount of water needed for a mold into a container (1 quart of water for 4 cups of plaster of Paris is a good proportion to use). Add plaster of Paris until a small mound stays on the surface of the water, and then stir until it thickens. Pour into a mold, form, box, or any container which will hold plaster firm until it sets. The form or box should be a little larger than the size of the finished carving. After plaster has set, it can be removed from the form. Even though still wet, it is ready for carving. It will stay damp for several days or can be resoaked in water and then carved or shaped with tools.

Zonolite Mixture I

4 parts coarse Zonolite (a building material)
2 parts sand
2 parts cement
Water

Mix the ingredients and pour into a wax carton. Allow to dry for 3 days. Peel the carton away and carve with a coping saw, nail, file, or tongue depressor. Paint with varnish or shellac.

Zonolite Mixture II

1 part dry Zonolite
3 parts vermiculite
Water

Add water gradually until the mixture looks like a cooked cereal. Pour into a box or form and allow it to dry for 1 week, then carve.

12. MODELING FOR CONSTRUCTING MATERIALS

Self-Hardening Clay

This clay hardens in drying, and requires no baking. It can be bought commercially in craft stores or supply houses. It is practical to use when you have no kiln, or when you do not wish to fire young children's work. To make you own, add:

1 part dextrin to
19 parts of clay flour

Dextrin added to clay will harden the pieces so they will be substantial enough to last without firing. Be sure to use the dextrin made from yellow corn. (White dextrin is not satisfactory.)

Dextrin may also be worked into wet clay. Use 1 teaspoonful of dextrin to 1 pound of wet clay. The pieces may be painted when dry.

Inexpensive Substitutes for Clay

Crepe Clay

1 fold of crepe paper -- any color
1 tablespoon of salt mixed with
1 cup of flour
Water

Cut the crepe paper into tiny pieces (confetti size). Place in a large bowl; add only enough water to cover the paper. Allow it to soak for 15 minutes, and pour off the excess water. Add enough of the flour-salt mixture to make a stiff dough. Knead well until it is blended with the crepe paper.

Flour Clay

1 cup flour
1 cup salt
1 rounded teaspoon powdered alum

Add water slowly and knead until a claylike consistency is reached.

Cornstarch Clay

1/2 cup cornstarch
1 cup salt
1 cup boiling water

Boil to a soft ball stage and knead on wax paper until malleable. Wrap in a wet cloth to keep a few days. These substitutes may be handled exactly like clay. They may be pressed on maps to make relief, and, when dry, substitutes can be painted. They retain shape without crumbling. For a colored mixture, add powder paint to the water when mixing it.

Sawdust-Wheat Paste-Clay Mixture

A mixture of ceramic clay, sawdust, and wheat paste
8 parts sawdust
1 part wheat paste
2 parts dry clay
5 parts water

Mix together sawdust, wheat paste, and dry clay. Add water. This mixture is especially good for modeling puppet heads. When thoroughly dried, it is almost as hard as wood.

Quickdrying Pulp Papier-Mache'

4 cups papier-mache' pulp
1 cup plaster of Paris
1/4 teaspoon commercial glue

Knead to the consistency of heavy dough. It will dry in from 3 to 6 hours.

Modeling Pulp

Add 1 cup of plaster of Paris to 1 gallon of any papier-mache' pulp. Mix thoroughly. Suitable for modeling fruits, vegetables, toys, animals, etc.

Crepe Papier-Mache'

To make crepe papier-mache', prepare a packed cupful of crepe paper cut in small pieces. Add enough water to wet the paper thoroughly and soak overnight. Then mix and rub the wet paper into a very fine pulp. Next, add 4 or 5 tablespoonfuls of flour and 2 tablespoonfuls of salt. Work this mixture thoroughly until it is the consistency of clay. Library paste can be added if desired. Mix a batch for each color to be used.

Single Form Laminated Papier-Mache'

Paste six layers of newspaper together. Add a seventh layer of paper toweling. Cut the pasted layers into an interesting form and gently shape the edges. Pinch them securely. Let dry thoroughly. Decorate with paint.

Clay Papier-Mache'

Soak newspaper in slip (liquid clay) instead of the usual wheat paste and water. This mixture is excellent for making a firm, yet brittle object. The finished piece will crack and break when dropped or hit with a hard object. This is ideal for making a pinata at Christmas time.

Dough Modeling Material

4 cups flour
2 cups water
1 1/2 cups salt
Coloring as desired
Food coloring recommended

Mix flour with the table salt, add coloring to water, and mix all ingredients together. If too spongy, add more salt. Knead thoroughly. Mixture keeps in good condition for a week and may be reused daily. Store in covered crock.

Asbestos

3 cups ground asbestos or asbestos shorts (used for covering furnace pipes)
1 teaspoon glue
1 cup flour
Water

Add enough water to make a dough of the right consistency for modeling. Ground asbestos is very inexpensive. When dry, it is light in weight, durable, a light gray color, and may be painted with powder paints.

Paper Gesso

1 sheet (single page) of old newspaper
1 tablespoon of flour paste or wallpaper paste mixed
4 tablespoons of plaster

Pulverize old newspaper and soak in water overnight. Pour off the excess water and knead the pulp. Add the paste and knead the mixture. Sift plaster into mixture a little at a time while stirring. This material should now be the consistency of cookie dough. Trowel the mixture on the object to be covered, immediately after mixing. The above formula should cover a 9' x 9' square with a 1/4" thick layer of gesso.

Clay for Modeling
1 lb. powder clay
1/4 pint (4 ozs.) water

Put the powder clay in a bowl and add water while stirring until a mixture the consistency of heavy putty is obtained. Take the mixture in your hands and knead it. If it is still sticky, add a small amount of clay powder until the mixture does not stick to your hands.

Another method of mixing this material requires a plastic bag. Powder clay and water are put into the bag and the top is sealed. You are now able to knead the mixture without getting it on your hands.

This clay, when modeled, may be fired and glazed in a kiln to make a more permanent waterproof object. Any class project which lasts more than one day must be well covered with several layers of damp cloth. The clay you do not use may be stored in a closed jar or in a crock covered with damp cloths. If the material does dry, it may be broken into small pieces and used again as discussed in the methods above.

Clay and Syrup Mixture
25 parts mixed powder clay
1 part dextrine or table syrup

The addition of dextrine to mixed powder clay will greatly increase the strength of any object modeled. It is best to mix only the amount needed because this mixture has a tendency to spoil if stored in a moist condition. This mixture cannot be fired.

Papier-Mache' - Method 1
1 1/2 sheets of newspaper
2 heaping tablespoons flour
Water
Oil of cloves (optional)

Tear newspaper into fine pieces and cover with boiling water. Stir until mixture becomes a pulp. Pour off excess water. Mix flour with small amount of boiling water. Add this to the paper pulp. Knead the dough. It is ready to model. Under some conditions, this mixture may spoil. To avoid this, a few drops of oil or cloves may be added.

Papier-Mache' - Method 2
1 part salt
1 part flour
Fine strips of crepe paper
Water

Mix salt and flour with small amount of water. Add crepe paper until a putty-like dough is formed. Knead the mixture and wrap in wet cloth overnight. It is now ready to model.

Papier-Mache' - Method 3
1 part clay powder
1/2 part kalsomine (limewash)
4 parts tissue paper

Add small amount of tissue paper to clay-kalsomine mixture until putty consistency. Knead the mixture and wrap in a wet cloth overnight. It is now ready to model.

Cornstarch and Salt Mixture
1 part cornstarch
3 parts salt
Water

Mix cornstarch and salt, add just enough water to make a putty-like consistency. Knead the mixture. It is ready to model. This mixture may be stored by covering it with a damp cloth. Uses for this material: relief maps, small three-dimensional objects.

Sawdust and Plaster Mixture
2 cups sawdust
1 cup of plaster
1/2 cup of wallpaper paste (wheat paste)
Water

Mix sawdust, plaster and wallpaper paste together in a bowl. When mixed, add small amounts of water until the mixture holds together. The amount of water is important in the formula, for too much will cause the mixture to run and not hold its shape. Knead the mixture and model immediately. This material will harden in about 45 minutes and hold its shape. However, it takes several days for an object to become completely dry.

Sawdust and Paste for Modeling
3 cups of sawdust
1 cup of wallpaper paste
Water
Oil of cloves (optional)

Mix the sawdust and wallpaper paste together in a bowl. Add just enough water so that the mixture will not crumble. Knead the mixture and model. This material may be kept damp and pliable for several days if wet rags are placed over it or it is kept in an air-tight jar. A few drops of oil of cloves may be added to the formula to retard mildew. An object modeled with this mixture usually takes a week to completely dry.

13. CASTING MATERIALS

Plaster
1 quart of water
3 3/4 pounds of plaster
(Plaster of paris, molding plaster, pottery plaster)

The above ingredients will make about 81 cubic inches of plaster. If you need more or less plaster, increase or decrease the ingredients proportionately. Put the water into a clean container which will hold twice the amount of water you plan to use. Sprinkle the plaster into the water. If you were not able to weigh the plaster, sprinkle it into the water until it forms a mound just above the top of the water. This should be equivalent to the 2 3/4 pounds per quart of water.

Now allow the mixture to stand for two minutes without stirring. After two minutes, begin to gently stir from the bottom until it thickens to the consistency of heavy cream and your finger will leave a slight depression on the surface. The plaster is now ready to pour.

If your project calls for a harder type of mixture, increase the amount of plaster in relation to the water. If your project calls for a softer type of mixture, decrease the amount of plaster. You will notice that when you decrease the plaster it requires more stirring to bring the mixture to the consistency of thick cream.

Your project may call for an even harder type of plaster than we have mentioned above. If so, building supply dealers stock two types - Hydrocal and Hydrostone. Hydrostone is the harder of the two.

Plaster and Sawdust Mixture
1 part plaster
2 parts water
1 part sawdust

The plaster and water are mixed as indicated in the formulas above, then the sawdust is added. This mixture will "set" in about the same time but it usually takes several days to dry completely.

Size for Casting - Method 1
1 quart of water
1 large bar castile soap
1/4 pint melted parrafin

Shave the soap into the water. Heat on a low flame until dissolved. Add the melted paraffin. Set aside to cool. When this is about the consistency of syrup, it is ready to use.

Size - Method 2
1 part lard
1 part tallow

Heat together and apply hot.

Size - Method 3
2 tablespoons soft soap
1 pint boiling water

Mix until it forms a creamy consistency. It is ready to apply.

Size - Method 4
Clean mold very thoroughly, apply several coats of white shellac with a final coating of sweet oil over surface before the plaster is poured.

14. MISCELLANEOUS

Stain-Oil Type
1 part linseed oil
1 part powdered tempera color

Mix linseed oil and desired color of powdered tempera together on a piece of glass or some non-absorbent surface. Rub into wood with a soft cloth. Wipe off excess with a dry cloth. Repeat above step if necessary to achieve desired color or value.

Wax for Wood
1 lb. beeswax
1/2 lb. paraffin
3 qts. turpentine

Mix wax and paraffin over low heat. Add turpentine and heat (use a hotplate, not an open flame) while stirring. Store in covered jar.

Starch Paper
4 level teaspoons cornstarch
1 pint water

Mix the cornstarch and a small quantity of the water, then stir this into the rest of the water, which should be boiling. When the mixture becomes clear, remove it from the fire and pour part of the starch into a small container. Add the desired color of tempera. Use any kind of brush to paint the mixture over the paper. Several colors may be used on one paper. While wet, drag a comb through the starch to make a design. Allow the paper to dry, then press with a warm iron.

Transparent Paper
4 oz. turpentine
2 oz. linseed oil

Mix together. Dip a soft cloth or brush into the mixture and rub over the surface of the paper. Allow to dry.

Crinkle Paper
Wet a piece of wrapping paper thoroughly on both sides. Paint dabs of colors on it. Crumple, then open it out and let dry. Press with a warm iron.

Marble Paper and Marsh Ink
Shave scraps of old crayons into a small quantity of turpentine. Let soak until crayon has completely dissolved. Pour mixture on top of a large container full of water, stir slightly, and lay paper on the surface of the water. Remove immediately and allow to dry. When the paper is completely dry, place it between two pieces of newspaper and press with a warm iron. Oil paints may be substituted for the crayon. The procedure is the same for both. Sprinkle drops of marsh ink on water. Pull paper through.

Stencil Paint
Powdered tempera color
Water

Mix water and tempera to spraying consistency.

Stencil Paper
Oak tag board
Block of paraffin

Melt the paraffin in an open pan. Dip the tagboard into the hot wax if possible and shake off the excess. If the tagboard required for your stenciling project is too large for the pan, paint the hot wax on the board with quick, long strokes. The resulting paper is fairly easy to cut and will hold its shape.

BASIC ART EQUIPMENT

Rationale: This list is offered as a guide to educators when considering the art equipment needs. The requirements of each school vary depending on the budget, time allotment, and methods of teaching. There are a number of items on this list that may be shared by several classrooms, and conveniently stored in a central location thereby reducing the cost of equipping the visual arts program.

Basic Equipment:

Brushes, Easel-Flat and Round Bristle
Easel, Double panel, folding type
Paper Cutter, 18" x 18" minimum size
Loom, Craft Weaving
Scissors, 4 1/2" sharp points
Water Color Cups--containers for paint mixing, brush cleaning

Alternatives: Where budget limitations prevent supplying the preceding list of equipment, and/or additions to this list are desired a few suggestions are: In place of:

Brushes--pieces of sponge with pincher clothes pin handles--varied sizes and shapes
Easels--laminated cardboard panels tape-hinged so they may be folded for storage
Paper Cutter--cutting board (plywood), framing square and utility knife (teacher use only).
Looms--cardboard, paper plates (notched), wood scrap frames with finish nail warp pegs
Scissors--no real substitute except exacto knives which are dangerous in unskilled hands; "nibble tearing" has its limitations where smooth edges are desired.
Water Color Cups--water proof milk cartons, small tin cans, plastic jugs that are cut down, and baby food jars with reusable tops.

Students and teachers also like to experiment with materials that may be native to their community, as well as improvise with scrap material which leads them to unique creative experiences.

In certain circimstances students may be called upon to supply themselves with such basics as brushes and scissors along with such expendable items as water colors, glue and crayons. This is usually dependant on local school policy.

FACILITY REQUIREMENTS FOR VISUAL ART EDUCATION

Rationale: Visual Art as an integral part of the general education program in any elementary school has certain facility needs in order to realize positive experiences for both instructor and student. Without these basic facilities, stringent restrictions may be imposed on the scope and sequence of the visual arts program resulting in frustration for the instructor and diminished and negative experience for the student. The following items are considered basic for an elementary visual art program.

1. Storage Space--for expendable supplies, student projects and portable equipment.
2. Water--a hot and cold mixer tap with easily cleanable sink and clean-out tray.
3. Electrical Service--a series of 110 volt, 40 amp outlets to accomodate portable power tools, audio-visual equipment, and minor heating appliances; a 220 volt, 50 amp service for heavy electrical equipment such as a ceramic kiln.
4. Work Space - Furniture--a series of student size tables or combined desks with a protective covering, portable seating, safety areas around any power equipment and/or cutting machines.
5. Light--adequate lighting both artificial and natural.
6. Ventilation--adjustable windows, and exhaust fans (fume proof) where needed.
7. Panels--for displays, graphic experiences, easels, and light blocks for audio-visual prosentations and experiences (photography).

Alternatives: Many elementary schools will not have the preceding listed facilities and must rely upon local innovative adaptations. Some suggestions towards this end are:

1. Storage--centralizing expendable supplies in one area as opposed to each classroom; construction of portable counter topped cabinets with adjustable shelving that may be fitted under and around heating systems, window, chalkboards and display panels.
2. Water--convert hall mounted drinking fountains to cold water tap/fountain with a small mop sink and trap underneath. Carts with water containers and waste recepticals that may be moved from one room to another is a second possibility. Custodial closets stratigically located throughout the school which have water and sinks are a third possibility.

3. Electrical Service--location and use of appliances, power tools, and kilns should be based upon available electrical service, and utilization of vacant spaces such as unused storage space and utility rooms. Both voltage and amperage currently available will be a deciding factor in the acquisition and location of power equipment as well as safety.
4. Work Space - Furniture--multi-purpose and cafeteria areas may be utilized as work laboratories depending on scheduling around major use of the room. The utilization of surplus tables and benches in protected outdoor areas are a possibility when weather permits. Special areas within the classroom may be designated for specialty use if classroom load permits.
5. Light--normally this is not a problem since health and safety code requirements must be met, and there is no alternative to it.
6. Ventilation--like the preceding item the requirements are pretty well established in order to meet health and safety codes. However, the utilization of portable circulating fans may help in air circulation and ventilation from partially opened windows during inclement weather.
7. Paneling--large pieces of cardboard crating may be cut and fitted to fulfill the stated needs. These panels may be cut and assembled in such a way that they may be dismantled and folded to occupy of minimum amount of storage space.

Note: These alternatives are a suggested approach only, and should not be interpreted as the only means of meeting individual school requirements. Each school and classroom may differ in what needs to done and what may be done in meeting facility requirements. In all cases maintenance and constructional expertise should be solicited in planning any change in current school facilities so that the health and safety codes are met.

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II. PERIODICALS

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ARTS AND ACTIVITIES	Arts and Activities 8150 North Central Park Ave. Skokie, Illinois 60076
ARTS CANADA	The Society for Art Publications 3 Church Street Toronto, M5E 1M2 Ontario
CERAMICS MONTHLY	Professional Publications, Inc. 1609 Northwest Boulevard Columbus, Ohio 43212
CRAFT HORIZONS	American Crafts Council 44 West 53rd Street New York, N.Y. 10019
CRAFTS AND THINGS	Crafts-n-Things Publishing Co. 2225 East Randoll Mill Road Arlington, Texas 76010
CREATIVE CRAFTS	Carstens Publications, Inc. P. O. Drawer 700 Newton, New Jersey 07860
DECORATING AND CRAFT IDEAS	Tandy Corporation P. O. Box 9737 Fort Worth, Texas 76107
JEWELRY MAKING--GEMS AND MINERALS	Gemac Corporation 1797 Capri Avenue Mentone, California 92359
SCHOOL ARTS	Davis Publications, Inc. 50 Portland Street Worchester, Massachusetts 01608

III. ARTS FOR MENTALLY RETARDED AND HANDICAPPED

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Included in the manual on art are suggestions concerning growth through a good classroom climate, orderly arrangements, displays and a good visual experience; a view of development through art, concept differentiation, motor and sensory skills, self-fulfillment and thought processes and art as therapy; and the art program itself.

Blessing, Kenneth R. A Potpourri of Ideas for Teachers of the Mentally Retarded. Vol. I, Arts and Crafts. Madison, WI: Wisconsin State Department of Public Instruction, May, 1966. ED-ED011157.
This curriculum guide suggests that the objective of arts and crafts activities for educable mentally retarded children is to provide enjoyable activities as well as to teach skills, socially acceptable attitudes and habits and self esteem. More than 85 arts and crafts ideas, complete with how-to-make directions and illustrations, comprise most of the booklet.

Buffalo Public Schools, NY. Art Projects and Activities for the Mentally Retarded. 1969. ED-ED039666.
Forty-two art activities are suggested for use with mentally handicapped children.

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The guide is divided into sections according to the material to be used. Section headings are: paper, fabrics, wood, metal, nature, miscellaneous and painting.

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Part II: deals with how to educate retarded children. Specific chapters deal with play, music and rhythm, drawing and painting and the manual arts.

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Ginglend, David R. The Expressive Arts for the Mentally Retarded. Arlington, TX: National Association for Retarded Children. 1961. Purpose: to stimulate thinking about the role of expressive arts in educating and training the mentally retarded and in broadening their interests and activities during leisure time. Areas include art, arts and crafts, communication and language, dance, dramatics and music.

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Six booklets - Getting Started, Finger Painting and Print Making, Drawing and Painting, Clay and Other Dimensional Media, Stitchery, and Woodworking and Odds and Ends - were written for parents, teachers, volunteers, nurses and vocational workers. Specific areas include: finger painting, pulling a print, butterfly prints, gadget printing, vegetable printing, linoleum block prints, scribbling, crayon processes, felt-tip markers, colored chalk drawings, melted crayon drawings, ink drawings, painting, cut-tear-paste pictures, puppets, paper mache, collage, mosaic, wire sculpture, seed pictures, tongue depressor projects, and holiday decorations.

Iowa State Department of Public Instruction. Art Integration: A Teaching Program for the Mentally Retarded. Iowa City: Iowa University, August, 1969. ED-ED033498.
To aid the teacher of the mentally retarded in integrating art into other subject areas, two sample projects and two five-lesson units with core activities. Directions are given for the use of the media of clay, fingerpaint, watercolor, tempera, crayon, paper, and other materials. Craft projects and ideas for core area activities are proposed.

McNeice, William C. and Kenneth R. Benson. Crafts for the Retarded: Through Their Hands They Shall Learn. Bloomington, IL: McKnight and McKnight Publishing Company, 1964.
Practical, sequential and creative arts and crafts projects for the retarded. Projects are coded to indicate the use of small or large muscles, the degree of difficulty and the required time for completion.

Mills, Esther and Others. A Comparison of Especially Designed Art Activities with Traditional Art Activities as Used with Intellectually Handicapped Children and Youth. Arlington County Public Schools, VA: Maryland University, 1961. ED-ED002900.

Pattemore, Arnel W. Art and Crafts for Slow Learners. Instructor Handbook Series. Dansville, NY: Instructor Publications, Inc., 1969. ED-ED031845.
This booklet describes successful projects which have been used in special education art classes and to assist teachers in planning a worthwhile program.

Pinellas County District School Board. Curriculum Guide Functional Level B Exceptional Child Program Clearwater, FL: January 1973. ED-ED075976.
Sequenced instructional objectives in subjects are listed for students having a chronological age of 8 to 10 years and a mental age of 4 tO 8 years. Among these are art and music having students produce by form and construction a recognizable object (art) and having students describe the emotional moods of assorted musical pieces (music attitudes). Materials corresponding to each teaching strategy are indicated.

Ragouin, Anne. Learning by Doing: An Illustrated Handbook for Parents and Teachers of Children Who Learn Slowly. Johnstown, PA: Mafex Associates, Inc., 1971.
Education and training programming for mentally retarded children and youth: areas include music and art.

Sun Dial School. Curriculum for the Trainable Mentally Retarded. Fort Lauderdale, FL: Broward County Board of Public Instruction, 1966.
Characteristics of the trainable child, the importance of parent education and an overview of curriculum objectives and educational needs are presented. Objectives, materials and suggested teaching activities for primary and intermediate levels in areas of communication skills, listening and language development, social development, reading, arithmetic, science, music, art, physical education, home economics and workshop and plant nursery experience.

Tulsa Public Schools. Curriculum Suggestions for the Educable Mentally Handicapped Program in Elementary Schools. Tulsa, OK. 1969. ED-ED038805.
Classroom management of educable retardates is discussed; methods and projects in arts and crafts are presented.

FILMS ON ARTS IN EDUCATION FOR MENTALLY RETARDED AND HANDICAPPED

Methods of Teaching Art to the Mentally Retarded - 1967, 33 minutes, $8.90.
Presentation of the six steps in planning and presenting an art lesson by the professor who then takes the role of a special education teacher to illustrate each step.

Out of the Shadows - 1969, 17 minutes, $6.00.
This film demonstrates a special education project with about 50 severely retarded children, none of whom have IQ's above 40. Through a well-organized reinforcement system, these children who otherwise have continued to exist in a custodial environment, learn the motor skills, color perception and the basic speech formation which allow them to participate in regular hospital programs which are geared to the moderately and mildly retarded.

Why Bill Couldn't Learn - 1967, 43 minutes, $6.90.
Techniques and special classrooms used in California public schools for training neurologically handicapped children; special educational needs and how they are met.

Chance to Live (16mm, sound, color, 18 minutes). South Carolina Association for Retarded Children, 1517 Hampton Street, P. O. Box 1564, Columbia, South Carolina.

This film describes the problems facing parents of mentally retarded children and the need for community services, day care centers, developmental centers, sheltered workshops and group homes. The Orange Grove program in Chattanooga, Tennessee is depicted with the focus on programming in South Carolina.

In day care settings, activities that stress socialization, skill development, and parent activities, are described. It is noted that persons are not institutionalized unless community services are not available. In the developmental center setting, the gap between day care and school or workshop is bridged. Much emphasis is given to skill development, habits and use of leisure hours in addition to deinstitutionalization. A sheltered workshop for the blind/mentally retarded is dealt with for meeting individual needs. In halfway houses (community homes) persons learn to live independently socially and economically. Supervision is given by house parents who provide a meaningful home to assist the people in finding a place in the world. Notation is made of services available in South Carolina and the need for emphasis on community services.

IMC/RMC Network Professional Film Collection (second edition). Council for Exceptional Children, 1920 Association Drive, Reston, Virginia 22091.

The catalog lists and describes 293 films concerning handicapped children which are available from the Instructional Materials Centers and Regional Media Centers' Network; art for exceptional children, autism, behavior management, gifted, disadvantaged, early childhood and preschool, emotionally disturbed, hearing/deaf and hard of hearing, learning disabilities, mentally handicapped, multiple handicapped, physically handicapped, psychology, reading, sight/visually handicapped, special education, speech/speech impaired, teacher training, tests, vocational education, and miscellaneous.

Where Do the Children Play? (16mm, sound, color, 15 minutes). National Association For Retarded Children, 2709 Avenue E East, Arlington, Texas 76011.

Today many severely or profoundly retarded children do not have to be institutionalized--they can live at home if there are sufficient and appropriate services in the community to meet individual and family needs. This documentary stresses the need for community day training programs for such children. In the film the hopes of a young couple are shattered when their first child is diagnosed as profoundly retarded. The option is of community-based services is contrasted with the traditional alternative of institutionalization. Scenes from various day training programs discuss the issue of providing developemental activities such as body identification, self-care, and patterning. The film ends on the question as to where do the children play emphasizing the potential and individuality of each child to reduce or eliminate dehumanization of any group or individual.